

**HNB GARHWAL UNIVERSITY**

**Department of Home Science**

**School of Sciences**

**SYLLABUS**

**(w.e.f. July 2015)**

**Master of Arts**

**(Two Year Course – Semester System)**

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Admission of the Master's Program in Home Science shall be through entrance examination conducted by the University and the program shall be based on credit system in which credit defines the quantum of content/ syllabus prescribed for a course system and determines the number of hours of instruction per week.

The student shall be eligible for admission to a Master's Degree Program in Home Science after she has successfully completed a three year undergraduate degree or earned prescribed number of credits through the examinations conducted by University as equivalent to an undergraduate degree.

Core courses prescribed for every Semester shall be mandatory for all students registered for the Master's Program in Home Science and shall carry minimum 54 credits. Besides this there shall be Elective courses offered in semester III and IV and shall carry a minimum of 18 credits. A self-study course would comprise of maximum 09 credits of which one minimum 03 credits shall be mandatory which shall not be included while calculating grades.

In order to qualify for a two year master's degree, a student must acquire a minimum of 72 credits including a minimum of 18 credits in electives and one qualifying self-study course of minimum 03 credits. In the fourth semester, student has to study three electives. Dissertation is an optional elective. Therefore student has the option of either choosing three theory papers as electives or choosing two theory papers and Dissertation. The dissertation is to be allotted in the beginning of Third Semester and would be submitted during the examination of the Fourth Semester. Minimum

eligibility for Dissertation is 70% aggregate in last examination. University norms laid down in the ordinances of the PG Syllabus must be followed for evaluation of dissertation.

### **COURSE OUTLINE**

<b>First Semester (July to November)</b>	<b>Name of Course</b>	<b>Course Number</b>	<b>Credits</b>	<b>Marks</b>
	Advanced Food Science ó I	SOS/HSC/C001	03	100
	Theories of Child Development	SOS/HSC/C002	03	100
	Advanced Clothing Construction	SOS/HSC/C003	03	100
	Extension in Home Science	SOS/HSC/C004	03	100
	Research Methods	SOS/HSC/C005	03	100
	Practical	SOS/HSC/C006	03	100
		<b>Core Credits</b>	<b>18</b>	<b>600</b>

<b>Second Semester (December to April)</b>	<b>Name of Course</b>	<b>Course Number</b>	<b>Credits</b>	<b>Marks</b>
	Advanced Food Science ó II	SOS/HSC/C007	03	100
	Life Span Development	SOS/HSC/C008	03	100
	Fabric Construction	SOS/HSC/C009	03	100
	Advanced Home Management	SOS/HSC/C010	03	100
	Statistics	SOS/HSC/C011	03	100
	Practical	SOS/HSC/C012	03	100
	Adolescence	SOS/HSC/SS01	03	100
	Computers	SOS/HSC/SS02	03	100
		<b>Core Credits</b>	<b>18</b>	<b>600</b>

<b>Third Semester (July to November)</b>	<b>Name of Course</b>	<b>Course Number</b>	<b>Credits</b>	<b>Marks</b>
	Community Nutrition	SOS/HSC/C0013	03	100
	Dyeing and Printing	SOS/HSC/C0014	03	100
	Practical	SOS/HSC/C015	03	100
	<b>Electives (Any three of the following):</b>			
	Advanced Food and Nutrition	SOS/HSC/E01	03	100
	Organization and Management of Early Childhood Education Center	SOS/HSC/E02	03	100
	Consumer Education	SOS/HSC/E03	03	100
	Early Childhood Education	SOS/HSC/E04	03	100
	Traditional Indian Embroidery and Textiles	SOS/HSC/E05	03	100
	Rural Sociology	SOS/HSC/SS03	03	100
	Child Welfare in India	SOS/HSC/SS04	03	100
	<b>Core Credits (09)+Elective Credits (09)</b>	<b>Total Credits</b>	<b>18</b>	<b>600</b>

<b>Fourth Semester (December to April)</b>	<b>Name of Course</b>	<b>Course Number</b>	<b>Credits</b>	<b>Marks</b>
	Food Safety and Preservation	SOS/HSC/C0016	03	100
	Children with Special Needs	SOS/HSC/C0017	03	100
	Practical	SOS/HSC/C018	03	100
	Electives (Any <b>three</b> of the following):			
	Guidance and Counseling	SOS/HSC/E06	03	100
	Psychological Testing and Measurement	SOS/HSC/E07	03	100
	Consumer Economics	SOS/HSC/E08	03	100
	Apparel Designing	SOS/HSC/E09	03	100
	Dissertation/Project	SOS/HSC/E10	03	100
	Marriage and Family	SOS/HSC/SS05	03	100
	Gender in Extension	SOS/HSC/SS06	03	100
	<b>Core Credits (09)+Elective Credits (09)</b>	<b>Total Credits</b>	<b>18</b>	<b>600</b>

**Grand Total: Core Credits 54 + Elective Credits 18 = 72 Credits**

**Max. Marks for each paper: 100 (two Sessional Tests of 20 marks each + 60 marks Term-End Examination)**

**Sessional Tests:** Mid-Term Test, Assignments, Classroom Seminars and Laboratory Work

The two-year Master's Programme will have the following components, viz.

(i) Core Course (C): Minimum 54 Credits

(ii) Electives (E): Minimum 18 Credits

(iii) Self study (SS): Maximum 09 credits (one minimum 03 Credits course shall be mandatory but not to be included while calculating the grades)

\* 01 Credit = 01 hour of lecture/instructions per week

01 Credit course = 15 hours of lectures per semester

\*\* 03hours of practical work shall be considered equivalent to 01 hour of lecture.

### **SEMESTER - I: (06 Core Courses)**

<b>First Semester</b>	<b>Name of Course</b>	<b>Course Number</b>	<b>Credits</b>	<b>Marks</b>
	Advanced Food Science ó I	SOS/HSC/C001	03	100
	Theories of Human Development	SOS/HSC/C002	03	100
	Advanced Clothing Construction	SOS/HSC/C003	03	100
	Extension Education and Communication in Home Science	SOS/HSC/C004	03	100
	Research Methodology in Home Science	SOS/HSC/C005	03	100
	Practical	SOS/HSC/C006	03	100

**Paper I (Core): SOS/HSC/C001: Advanced Food Science – I**

**(Credits: 03; Marks: 100)**

**Unit -1**

Different food groups and their nutritive values

Beverages: Coffee, tea and Cocoa; Soft Drink; Alcoholic beverages

**Unit -2**

Fruits: Composition and nutritive value

Vegetables: Classification, composition, nutritive value and methods of cooking

Preserved and processed products from fruits and vegetables

**Unit -3**

Cereals: Breakfast cereals ó Uncooked and ready to eat products; Cereal-based products ó processed, fermented and baked

Pulses and legumes: Composition and processing; Toxic constituents of Pulses and elimination of toxic factors

**Unit -4**

Nuts and oilseeds: Use and processing

Fats and oils: Functions of oils and fats in food; Processing of fats

**References**

1. Amerine MA, Pengborn RM, Roceasier EB (1965). Principles of Sensory Evaluation and Academic Press, New York.
2. Srilakshmi, B. Food Science, 4<sup>th</sup> Edition, New Age Publishers, New Delhi
3. Food Science and Experimental Foods, M. Swaminathan, Bappco

**Paper II (Core): SOS/HSC/C002: Theories of Human Development**

**(Credits: 03; Marks: 100)**

**Unit I:**

Maslow's self-actualization theory

Freud's psychosexual or psychoanalytic theory

Erikson's psychosocial theory

**Unit II:**

Skinner's theory of Operant or instrumental conditioning

Pavlov's theory of classical conditioning

Thorndike's Trial and Error Learning

**Unit III:**

Kohlberg's six stages of moral reasoning

**Unit IV:**

Piaget's cognitive development theory

**References:**

1. Morgan, King et al (1999): "Introduction to Psychology", Tata Mc Graw-Hill Edition, Delhi, India
2. Hurlock E (2000): "Child Development", Tata Mc Graw-Hill Edition, Delhi, India
3. Bal Vikas evam Bal Manovigyan, Brinda Singh, Panchseel Prakashan, Jaipur

**Paper III (Core): SOS/HSC/C003: Advanced Clothing Construction****(Credits: 03; Marks: 100)****Unit I:**

Equipment used in clothing construction

Sewing machine: Parts and attachments; common defects and remedial measures, care and maintenance

Anthropometric Measurements: Need; taking measurements for different garments; precautions and method; tools and materials

**Unit II:**

Techniques of clothing construction:

Drafting: Meaning and importance; tools, method and precautions; drafting on paper and cloth;

Pattern making: Meaning and importance; parts of pattern; tools required; symbols used and general rules

**Unit III:**

General principles of clothing construction; Steps in clothing construction: Preparation of fabric for clothing construction; preparing layout; marking of cloth; principles of cutting; principles of stitching; finishing

**Unit IV:**

Use of construction features in design ó seams, darts, tucks, pleats, gathers, placket opening, shirring, smocking

Different types of ó necklines, collars, yokes and sleeves

Renovation of clothing

**References:**

1. Vastra evam Paridhan, Shashi Prabha Jain and Archana Jain, Shiva Prakashan, Indore
2. Parivarik Paridhan Vyavastha, Manju Patni and Sapna Henry, Star Publications
3. Vastra Vigyan ke Mool Sidhanth, G.P. Sherry, Vinod Pustak Mandir
4. Griha Vigyan Vishwakosh, Rama Sharma and M.K Mishra, Arjun Publishing House

**Paper IV (Core): SOS/HSC/C004: Extension Education and Communication in Home Science****(Credits: 03; Marks: 100)**

### **Unit 1**

Home Science: Concept, objectives, areas and relationship with extension  
Home Science Extension Education: Meaning, objectives, principles, process and methods

### **Unit 2**

Qualities of home science extension worker  
Extension education methods

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### **Unit 3**

Audio Visual aids in Home Science extension education  
Agencies (national and international) associated with extension education for rural development

### **Unit 4**

Community development: Organization, principles, characteristics and functions  
Role of home scientists in community development

### **References**

1. Griha Vigyan Prasar Shiksha, Manju Patney and U.S Thakur, Shiva Prakashan Indore
2. Communication for Development in the Third World Theory and Practices (1991) . Sage Publication, New Delhi.
3. Chaubey BK (1990) A Handbook of Education Extension, Jyoti Publication, Allahabad
4. Singh , R. (1987)Text Book of Extension Sahitya Kala Prakashan , Ludhiana
5. Extension Education in Community (1961) Ministry of Food and Agriculture, Government of India, New Delhi
6. Extension Programme Planning, Oxford and IBH Publishing Company Pvt. Ltd. New Delhi

### **Paper V (Core): SOS/HSC/C005: Research Methodology in Home Science**

**(Credits: 03; Marks: 100)**

#### **Unit I:**

Methods of acquiring knowledge  
Research: Definition, nature, need and steps

#### **Unit II:**

Definition and identification of research problem, selection of a problem  
Nature, types and functions of hypothesis

#### **Unit III:**

Types of researches ó Historical, survey and experimental  
Research Design ó Definition, types, basic principles and purpose

#### **Unit IV:**

Population and sample  
Probability sampling  
Non-probability sampling

**Unit V:**

Sources of Data

Data gathering instruments and techniques ó interview, questionnaire, observation, case study, sociometry and projective techniques

Report writing

**References:**

1. Gupta, S.P., Statistical Methods, Sultan Chand and Sons, New Delhi, 1994
2. Jain, Gopal Lal, Research Methodology, Methods, Tools and Techniques, Mangal Deep Publications, Jaipur, 1998
3. Kothari, C.R.: An Introduction to Operational Research, Vikas Publishing House Pvt. Ltd, New Delhi, 1994
4. Wright, Susan E., Social Science Stastics Allyn and Bacon Inc., London, 1986
5. Wisniekwski, Mik, Quantitative Methods for Descision Makers, Mcmillan India Ltd., New Delhi, 1986.

**Paper VI (Core): SOS/HSC/C006: Practical****(Credits: 03; Marks: 100)****Practical:**

1. Preparation of theme-based audio-visual aids: Chart, Poster, Flash Card, Pamphlet/Folder and Flannelograph.
2. Construction of darts, pleats, tucks, gathers; basic seams; collars and sleeves.
3. Drafting of adult basic bodice and sleeve block and stitching of blouse and kurta.
4. Understanding and handling of sewing machine: various parts; accessories; care, common defects and remedial measures

**SEMESTER - II: (06 Core Courses)**

<b>Second Semester</b>	<b>Name of Course</b>	<b>Course Number</b>	<b>Credits</b>	<b>Marks</b>
	Advanced Food Science ó II	SOS/HSC/C007	03	100
	Life Span Development	SOS/HSC/C008	03	100
	Fabric Construction	SOS/HSC/C009	03	100
	Advanced Home Management	SOS/HSC/C010	03	100
	Statistics in Home Science	SOS/HSC/C011	03	100
	Practical	SOS/HSC/C012	03	100
	Adolescence	SOS/HSC/SS01	03	100
	Basic Computers	SOS/HSC/SS02	03	100

**Paper I (Core): SOS/HSC/007: Advanced Food Science – II**

(Credits: 03; Marks: 100)

**Unit 1**

Evaluation of foods: Visual examination and sensory evaluation (colour, texture, flavor and taste)

Fermented foods, pickles, sauces

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**Unit 2**

Meat: Composition, cooking of meat; Changes produced during meat cooking; Meat substitutes

Fish: Type, composition and cookery, preservation and processing

**Unit 3**

Egg: Nutritive value and structure; Storage and processing; Effect of heat on egg protein; Egg products; Egg cookery; use of egg as a thickening agent and an emulsifying agent.

Milk: Composition and importance; Milk processing; Milk products; Milk substitute.

**Unit 4**

Sugar: Different types of sugars; Indian confectionary

Spices and condiments: Role of major and minor spices and their use; active principles in some spices, Adulteration of spices

**References:**

1. Handbook of Food Science and Experimental Foods, M Swaminathan, Bappco

**Paper II (Core): SOS/HSC/008: Life Span Development**

(Credits: 03; Marks: 100)

**Unit I: Early Adulthood**

Characteristics; Sub-stages; Developmental Tasks

Problems: Adjustments, Interests, Vocational, Marital life and adjustments, Divorce, Re-marriage, Unmarried life/singlehood

**Unit II: Middle Age**

Characteristics; Subdivisions; Developmental Tasks

Problems: Some common problems unique to old age; Physical changes, Health, Changes in interests, Vocational, Changing family pattern, Family adjustments, Loss of spouse

**Unit III: Old Age**

Characteristics; Subdivisions; Developmental Tasks

Types of Changes during ageing: Physical, Sensory, Sexual, Health, Changes in motor abilities, Changes in mental abilities and cognitive capacities, Changes in interests, Retirement, Loss of spouse; Vocational and Family life hazards of old age; Consequences of ageing

**References:**



1. Vikasatmak Manovigyan, Rajendra Prasad Singh, Jitendra Kumar Upadhyay, Rajendra Singh; Motilal Banarsidas, New Delhi.
2. Baal Vikas evam Baal Manovigyan, Vrinda Singh, Panchsheel Prakashan, Jaipur
3. Hurlock B Elizabeth (1981), Developmental Psychology – A Life Span Approach, Tata Mc Graw Hill
4. Hurlock B Elizabeth (1978), Child Growth and Development, Tata Mc Graw Hill
5. Hurlock B Elizabeth (1997), Child Development, Tata Mc Graw Hill
6. Papalia E Diane & Olds Wendkos Sally (1975), A Child's World – Infancy through Adolescence, Mc Graw-Hill Book Company
7. Berk E Laura (2000), Child Development, Allyn and Bacon

**Paper III (Core): SOS/HSC/009: Fabric Construction**

**(Credits: 03; Marks: 100)**

**Unit I**

Yarn construction – mechanical and chemical spinning; Different stages of yarn construction; Types of yarn – simple, textured and spun; simple – simple, ply, cord; novelty; ply, cable, double and novelty; yarn numbering and yarn twist

Blends – meaning, types, process and reasons for blending, difference between blends and mixed

**Unit II**

Methods of fabric construction: from solutions – film method, foam method, felting, non-woven method, from yarn – braiding, knitting, lace method and weaving

Non-woven fabrics – meaning, types, methods and uses

Felting – meaning, types and process

**Unit III**

Knitting technology: Definition, classification, material and equipments; Methods of knitting – weft knitting and warp knitting; Uses and disadvantages of knitted fabrics

**Unit IV**

Weaving technology: Definition, main operations; Characteristics of woven fabrics; Selvage – types; Types of weaves

Loom – Parts of loom; Classification and types of loom; Motions of the loom

**References:**

Vastra Rachna evam Chappai Takneek, Jain and Gupta, Shiva Prakashan, Indore

Vastra Vigyan evam Paridhan Parichay, Patni, Agarwal evam Gupta; Shiva Prakashan, Indore

Vastra Vigyan ke Siddhanth, Reena Khanuja, Agarwal Publications

Vastra Vigyan evam paridhan vyavastha – Manju Patni, Star Publications

## **Paper IV (Core): SOS/HSC/010: Advanced Home Management**

**(Credits: 03; Marks: 100)**

### **Unit 1**

Management in family living, characteristics of management in home, role of home management, misconceptions regarding home management  
Roles and responsibilities, characteristics and functions of a home manager

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### **Unit 2**

Values ó Concept, characteristics, classification and factors influencing values  
Goals ó Concept, types, factors influencing goals  
Standards ó Concept, classification of standards  
Interrelatedness of values, goals and standards

### **Unit 3**

Management process: Planning, organizing, leading, controlling and evaluating  
Decision making: Concept, steps, factors affecting, kind  
Resources: Meaning and definition, role, characteristics, classification

### **Unit 4**

Time Management: Tools ó peak loads, work curves, rest periods and work simplification  
Energy Management: Classification of efforts used in home making, fatigue ó types and causes  
Work simplification: Techniques ó pathway chart, operation chart, micro-motion film analysis and path process chart

### **Unit 5**

Money Management: Budgeting ó Definition, importance and steps in planning a budget  
Account keeping ó importance, types of account systems, methods of handling money, family financial records

### **References:**

1. An Introduction to Family Resource Management, Premavathy Seetharaman, Sonia Batra and Preeti Mehra, CBS Publishers and Distributors

## **Paper V (Core): SOS/HSC/011: Statistics in Home Science**

**(Credits: 03; Marks: 100)**

### **Unit I**

Meaning and uses of statistics, classification and tabulation of data  
Construction of frequency distribution table

### **Unit II**

Diagrammatic representation of data ó single dimensional diagrams (line and bar), two dimensional diagram (pie)  
Graphical representation of data ó graphs of frequency distribution (histogram, frequency polygon, frequency curve)

### **Unit III**

Measures of central tendency ó mean, median, mode  
Measures of dispersion ó standard deviation

### **Unit IV**

Analysis of data  
Writing a research report

### **Paper VI (Core): SOS/HSC/012: Practical**

**(Credits: 03; Marks: 100)**

1. Preparation of recipes from different Indian states
2. Preparation of low cost high nutritive value recipes
3. Drafting and lifting plan of different weaves on graph paper and glaze paper
4. Visit to a cloth weaving unit and report writing
5. Hand knitting samples/articles

### **Paper VII (Self Study): SOS/HSC/012: Adolescence**

**(Credits: 03; Marks: 100)**

#### **Unit 1**

Puberty and Adolescence ó definition and characteristics  
Physical changes during puberty and adolescence and their impact on adolescent and family  
Developmental tasks of adolescence

#### **Unit 2**

Social and emotional development during adolescence  
Factors affecting social and emotional development  
Role of parents, teachers, peers and society

#### **Unit 3**

Friendship patterns and social groupings during adolescence  
Process of socialization  
Development of interests and attitudes

#### **Unit 4**

Problems of adolescence ó drop out from education system, juvenile delinquency ó causes and prevention, addiction and alcoholism  
Problems of adjustment, identity crisis

#### **References:**

Kishore-awastha, Vivah evam Parivarik Jeevan, Alka David, Shiva Prakashan, Indore

### **Paper VIII (Self Study): SOS/HSC/012: Basic Computers**

**(Credits: 03; Marks: 100)**

### Unit I

Overview about computers ó Definition, parts of computer system, working and functions of computer, history of computers, Generations of computers ó First, Second, Third, Fourth and Fifth

### Unit II

Characteristics of computer, applications of computers in various fields, classification of computers, types of Personal Computers

Components of a computer ó Organization of computer, main parts of computer ó CPU, Input devices, Output devices, memory

### Unit III

Input devices ó Meaning and their examples

Output devices ó Meaning, types of presentation of output ó text, graphic, sound; Types ó Video Display Screen or Monitor, printer, plotter

### Unit IV

Memory ó Primary memory and its types; Secondary Memory and its examples

Hardware, Software, Skinware and Liveware

### References:

Computer ka Parichay ó Gaurav Agarwal, Shiva Prakashan, Indore

### SEMESTER - III: (03 Core Courses + 03 Electives)

Third Semester	Name of Course	Course Number	Credits	Marks
	Community Nutrition	SOS/HSC/C013	03	100
	Dyeing and Printing	SOS/HSC/C014	03	100
	Practical	SOS/HSC/C015	03	100
	Electives (Any <b>three</b> of the following):			
	Advanced Food and Nutrition	SOS/HSC/E001	03	100
	Organization and Management of Early Childhood Education Center	SOS/HSC/E002	03	100
	Consumer Education	SOS/HSC/E003	03	100
	Early Childhood Education	SOS/HSC/E004	03	100
	Traditional Indian Embroidery and Textiles	SOS/HSC/E005	03	100
	Rural Sociology	SOS/HSC/SS003	03	100
	Child Welfare in India	SOS/HSC/SS004	03	100

**Paper I (Core): SOS/HSC/C013: Community Nutrition (Credits: 03; Marks: 100)**

**Unit-I**

Prevalence, etiology, biochemical and clinical manifestation and preventive measures for: Protein Calories Malnutrition- Kwashiorkar and Marasmus

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**Unit II:**

Prevalence, etiology, biochemical and clinical manifestation and preventive measures for: Iron deficiency, Iodine deficiency; Fluorine Deficiency and Toxicity

**Unit III:**

Prevalence, etiology, biochemical and clinical manifestation and preventive measures for Vitamin A deficiency; Beri-beri, Pellagra; Scurvy; Rickets, Osteomalacia and Osteoporosis

**Unit IV:**

Nutritional assessment and surveillance ó Meaning, need, objectives and importance  
Anthropometry ó Need, importance, types, standards for reference  
Biochemical methods ó Biophysical or Radiological assessment, functional assessment, laboratory and biochemical assessment  
Clinical assessment ó Need, importance, identifying signs of deficiency diseases  
Diet surveys ó Need, importance, methods

**Paper II (Core): SOS/HSC/C014: Dyeing and Printing**

**(Credits: 03; Marks: 100)**

**Unit I:**

Dyes ó Definition and classification of dyes  
Different types of dyes: Natural dyes ó Vegetable, animal and mineral; Synthetic dyes ó direct, acid, basic, reactive, vat, sulphur, mordant, disperse, pigments  
Suitability of various dyes to different fibres

**Unit II:**

Dyeing methods at different stages of processing ó fibre, yarn, piece, union and cross  
Colour fastness characteristics ó washing, sunlight, crocking, and perspiration  
Domestic methods of dyeing

**Unit III:**

Printing ó Significance, methods ó block, stencil, screen, roller  
Faults in printing  
Advantages and disadvantages of different printing methods

**Unit III:**

Preparation of printing paste, use of various ingredients and thickeners  
Preparation of cloth for printing  
After-treatment of printed goods

Printing of cellulosic fabric with pigments, azoic, direct, vat and reactive dyes  
Printing of wool and silk with acid and reactive dyes

**References:**

Vastra Rachna evam Chappai Takneek, Jain and Gupta, Shiva Prakashan, Indore

**Paper III (Core): SOS/HSC/C015: Practical**

**(Credits: 03; Marks: 100)**

1. Familiarize students with methods of assessment of nutritional status and conduct single person case study to assess and evaluate nutritional status or carry out a survey using anthropometric measurements.
2. Construction of articles using different types of printing and dyeing techniques

**Paper IV (Elective): SOS/HSC/E001: Advanced Food and Nutrition**

**(Credits: 03; Marks: 100)**

**Unit 1**

Dietary Nutrients in foods: Types, Functions, requirement, and sources; Digestion, absorption & Utilization of Nutrients; Energy ó Requirements and B.M.R

**Unit 2**

Nutrition during different life cycles: infancy pre-school, pregnancy, lactation, old-age etc.

**Unit 3**

National nutrition policy and supplementary feeding programmes

National and international agencies in the field of nutrition

Therapeutic Nutrition: Definition, importance and scope, adaptation of normal diet for therapeutic purposes (Soft diet, full fluid diet, bland diet etc.)

**Unit 4**

Etiology, causative factors, preventive measures and planning of diets in febrile conditions (acute fever, typhoid, tuberculosis); gastro-intestinal disorders (diarrhea, constipation, peptic ulcers); kidney diseases (acute and chronic nephritis); diabetes mellitus, cardio-vascular diseases (hypertension, coronary heart diseases)

**Reference**

1. Cherley H (1982). Food Science (2nd edition), John Wiley & Sons, New York.
2. Gopalan C. (eds.) (1993) Recent Trends in Nutrition, Oxford University Press.
3. International Child Health: A Digest of Current Information.
4. Jallinek G (1985). Sensory Evaluation of Food Theory and Practice, Ellis Harwood Chicester.
5. Jelliffe DE and Jelliffe EFP (1989). Community Nutritional Assessment, Oxford University Press.

**Paper V (Elective): SOS/HSC/E002: Organization and Management of Early Childhood Education Center** (Credits: 03; Marks: 100)

**Unit 1: Minimum requirements of Early Childhood Education Center:**

Building requirements ó physical structure and facilities; indoor space ó size and arrangement of rooms; outdoor space; Equipment and Play Materials – Outdoor Play Equipment; Indoor Play equipment; Selection of Equipment and Play materials; Maintenance and display of materials; Safety requirements; Age for admission, Admission procedure. ECE programme ó timings, content and methodology; Records in ECE center

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**Unit 2: Staff, Family and Community**

Staff structure, qualifications; Essential Qualities (Personal and Professional) of ECE teacher; Role and Responsibilities of Pre-School teacher; Need and Importance of involving family and community; Methods of Involving Parents; Community Participation

**Unit 3: Planning the Curriculum**

Need for Planning ECE Curriculum; Principles in Developing Daily Schedules; Stages in Curriculum Planning ó Planning of Long Term Goals, Planning of Short Term Goals, Identifying Play Activities, Formulating Daily and Weekly Schedules;

**Unit 4: Evaluation**

Concept and Purpose of Evaluation; Evaluating Play Activities; Evaluating Children; Tools for Evaluating Children; Evaluating ECE center

**Paper VI (Elective): SOS/HSC/E003: Consumer Education**

(Credits: 03; Marks: 100)

**Unit 1:**

Consumer ó definition, meaning, characteristics and types  
Consumer behavior ó meaning, factors influencing, consumer and sales techniques  
Steps in decision-making by the consumer

**Unit 2:**

Rights and responsibilities of the consumer  
Problems of the Indian consumer  
Consumer protection ó meaning, definition, need, measures

**Unit 3:**

Consumer and Law  
Consumer welfare  
Consumer protection services

**Unit 4:**

Approaches for consumer education

Standard and standardization ó meaning, definition, advantages and disadvantages, problems and obstacles

**References:**

1. Upbhokta Arthshashtra, Karuna Sharma, Manju Patni and Deepak Agarwal, Shiva Prakashan Indore
2. Parivarik Vit evam Upbhokta Shiksha, Karuna Sharma, Sandhya Sharma and Deepak Agarwal, Shiva Prakashan Indore

**Paper VII (Elective): SOS/HSC/E004: Early Childhood and Education**

**(Credits: 03; Marks: 100)**

**Unit I: Historical perspective of early childhood education**

Contribution of various thinkers (their ideology, applications and limitations)

Western: John Amos Comenius, Johann Heinrich Pestalozzi, John Locke, Friedrich Wilhelm Froebel, Jean Jacques Rousseau, Maria Montessori

Indian: Rabindranath Tagore (1861 – 1941), Gijubhai Badeka, M.K Gandhi, Tarabai Modak

**Unit II: Principles of Early Childhood Education**

Objectives; Need and significance; Basic Principles; The Playway Method; Early Childhood education services in India - Government Sector ó ICDS, NIPCCD, NCERT etc; Voluntary Sector ó ICCW, Balwadi, Mobile Creche’s, ECCE centers etc.; Private Sector (Nursery, Pre-Primary etc)

**Unit III: Early Childhood Years (3 – 6 Years)**

Children in the Early Childhood Years – Developmental Characteristics; Developmental needs; Interests; Significance of First Five Years of Life

**Unit IV: Play**

Concept of Play; Play and Learning; Role of play in development; Play as a means of understanding children’s development; Different types of play among preschool children (unoccupied behaviour, onlooker, solitary independent play, parallel activity, associative play, cooperative or organized supplementary play)

**References:**

1. NCERT (1991), A Guide for Nursery School Teachers, NCERT, New Delhi
2. Seth Kanta, Ahuja Kavita (1996), Minimum Specifications for Pre-Schools, NCERT, New Delhi
3. Kohn Ruth (2003), The Exploring Child – A Handbook for Pre-Primary Teachers, Orient Longman, Delhi
4. Chowdhury D Paul (1995), Child Welfare/Development, Atma Ram & Sons, Delhi
5. Certificate Course in Organizing Child Care Services, IGNOU, (Block 1 to 6)
6. Grewal J S (1998), Early Childhood Education – Foundations and Practice, Har Prasad Bhargava, Agra



7. Kaul Venita (1991), Early Childhood Education Programme, NCERT, New Delhi

8. Mina Swaminathan, Bacchon Ke Liye Khel Kriyaen, UNICEF, New Delhi

**Paper VIII (Elective): SOS/HSC/E005: Traditional Indian Embroidery and Textiles**  
(Credits: 03; Marks: 100)

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**Unit I**

Historical background of traditional Indian embroidery

General embroidery techniques; Hand embroidery ó knowledge of basic hand embroidery stitches

**Unit II**

Study of traditional embroideries of India: Texture, design and colour

Chikankari of Uttar Pradesh, Kantha of Bengal, Kasuti of Karnataka, Kutch Kathiawar of Gujarat, Phulkari of Punjab, Sindhi embroidery

**Unit III**

Traditional Textiles of India: Texture, design and colour

Woven (in design) ó Patola, brocade, chanderi, paithani, pochampalli, ikat, maheshwari

Printed woven fabric ó dacca muslin, tassar, kota doris

Printed ó Sanganeri, kharhi print of Gujarat

Painted ó kalamkari, madhubani

Resist dyed ó bandhej of Gujarat and Rajasthan

**Unit IV**

Khadi: Significance ó National and economic; Revolution in Khadi

Handloom: Definition, role in national economy and some chief handloom clothes of India

**References**

1. Parivarik Paridhan Vyavastha ó Sapna Henry and Manju Patni, Star Publications
2. Vastra evam Paridhan ó Shashiprabha Jain and Archana Jain, Shiva Prakashan, Indore

**Paper IX (Self Study): SOS/HSC/S002: Rural Sociology**

(Credits: 03; Marks: 100)

**Unit I:**

Rural sociology: Meaning, definition, need to study, scope and importance

Difference between rural and urban society

**Unit II:**

Characteristics of rural life

Caste system in rural society

**Unit III:**

Physical structure of rural society

Social organization of rural society

**Unit IV:**

Rural leadership ó meaning, principles of leadership, types of leaders, qualities of leader, selection of rural leader

**References:**

1. nd kbz , - vkj Hkkj rh; xteh.k l ekt Q, University Book House, Jaipur.
2. Doshi S. L. Rural Sociology, University Book House, Jaipur.
3. Ahuja Ram Social Problems in India University Book House, Jaipur.
4. Aggrwal G. K. xteh.k l ekt Q = % vkxjk % l kfgR; Hkou
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**Paper X (Self Study): SOS/HSC/S004: Child Welfare in India (Credits: 03; Marks: 100)****Unit I: Child Welfare in India**

Concept and historical perspective, Need and relevance

Historical evolution of Child welfare

Rights of children; Protection of Child rights; Convention on the rights of the child

Child in the Constitution of India

**Unit II: Profile of child in India**

Demographic: Total population, Child population, Sex ratio, Infant Mortality Rate (IMR), Literacy, School enrolment rate

**Unit III: Children at Risk**

Children in especially difficult circumstances, Children in emergency situation, Disabled child, Destitute child, Street child, Delinquent child, Working child

Social problems related to children ó female foeticide (pre-birth and pre-conception elimination), juvenile delinquency, child labour, child abuse and child marriage, discrimination against girl child

**Unit IV: Policies and Legislations for Child Welfare**

National Children's Board, The National Policy for the Child, The National Children's Fund, Child Labor Cell

Child Labour Act; PC-PNDT Act; Child Marriage Act, The Children's Act, Juvenile Justice Act, Right to Education Act

**Unit V: Child Welfare agencies and programmes in India**

International, national and local agencies ó governmental and non-governmental (UNICEF, ICCW, Mobile Creches, Bal Bhwan)

Welfare programs ó ICDS, Mid-day Meal Programme, Universal Immunization Programme, etc

**References:**

1. Baig, T.A. (1979): Our Children. New Delhi: Ministry of Information and Broadcasting, Govt. of India
2. Chowdhry, D.P. (1980): Child Welfare and Development. Delhi: Atma Ram

**SEMESTER - IV: (03 Core Courses + 03 Electives)**

<b>Fourth Semester</b>	<b>Name of Course</b>	<b>Course Number</b>	<b>Credits</b>	<b>Marks</b>
	Food Safety and Preservation	SOS/HSC/C016	03	100
	Children with Special Needs	SOS/HSC/C017	03	100
	Practical	SOS/HSC/C018	03	100
	Electives (Any <b>three</b> of the following):			
	Guidance and Counseling	SOS/HSC/E06	03	100
	Psychological Testing and Measurement	SOS/HSC/E07	03	100
	Consumer Economics	SOS/HSC/E08	03	100
	Apparel Designing	SOS/HSC/E09	03	100
	Dissertation	SOS/HSC/E10	03	100
	Marriage and Family	SOS/HSC/S05	03	100
	Gender in Extension	SOS/HSC/S06	03	100

**Paper I (Core): SOS/HSC/C016: Food Safety and Preservation**

**(Credits: 03; Marks: 100)**

**Unit 1**

Food sanitation and hygiene  
Food borne diseases

**Unit 2**

Food Adulteration and Consumer Protection  
Food laws and standards

**Unit 3**

Causes of food spoilage  
Food preservation ó Principles and methods  
Home scale methods of food preservation

**Unit -4**

Fortification of foods with vitamins and minerals  
Novel and processed supplementary foods  
Enzymes in food processing

**References:**

1. Fundamentals of Foods and Nutrition, S.R. Mudambi and M.V. Rajagopal, New Age International (P) Ltd. Publishers
2. A Textbook of Foods, Nutrition and Dietetics, M.R. Begum, Sterling Publishers Pvt. Ltd.
3. Cherley H (1982). Food Science (2nd edition), John Wiley & Sons, New York

4. Gopalan C. (eds.) (1993) Recent Trends in Nutrition, Oxford University Press
5. Handbook of food and nutrition, M. Swaminathan, Bappco

**Paper II (Core): SOS/HSC/C017: Children with Special Needs**

**(Credits: 03; Marks: 100)**

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**Unit I:**

Children with special needs: Definition, characteristics, classification according to types of impairment

Special education for children with special needs

**Unit II:**

Mental retardation: definition and levels, causes, identification, educational provisions

Gifted and creative children: definition, characteristics, special needs, identification and educational provisions

**Unit III:**

Visually handicapped children: Classification, identification and educational provisions

Hearing impaired: Classification, identification, causes and educational provisions

**Unit IV:**

Children with orthopaedic impairments: Definition, classification, causes, educational provisions and rehabilitation

Children with behaviour disorders: autism and aggressive behaviour

**References:**

1. Bhargava M. (1994) Introduction to Exceptional Children, Sterling Publishers, New Delhi.
2. Kar Chintamani (1996) Exceptional Children: Their Psychology and Education, Sterling Publishers, New Delhi.
3. Sahu B.K. (1993) Education of the Exceptional Children, Kalyani Publishers, New Delhi.
4. Vishisht Avashyakta wale bacchon ki shiksha tatha nirdeshan evam paramarsh, Vinay Rishivar, Agarwal Publications
5. Vishisht Balak, Abha Rani Bisht and Swati Saxena, Agarwal Publications
6. Vishesh Avakshyataon waale Bacche Part I and II, DECE-3, Bacchon ke liye sewayen evam karyakram, IGNOU
7. Vishisht Baalak ó Shiksha evam Punarwaas, Mahesh Bhargava, H.P. Bhargava Book House, Agra

**Paper III (Core): SOS/HSC/C018: Practical**

**(Credits: 03; Marks: 100)**

1. Simple physical tests and chemical tests for detection of food adulterants

2. Home scale food preservation – preparing jam, pickle, chutney, sauce, syrup etc
3. Study of food label of processed foods available in the market
4. Case study/Report writing of a child with special needs/ a visit to an institution for children with special needs
5. Preparing an educational game or teaching aid for a child with special needs

**Paper IV (Elective): SOS/HSC/E06: Guidance and Counseling**

**(Credits: 03; Marks: 100)**

**UNIT I**

Guidance ó Meaning, Aims, Scope, Need

Organs of guidance process

Foundations of guidance ó philosophical, psychological and socio-cultural

Types ó Educational, Vocational, Personal

**UNIT II**

Counseling ó Meaning, Definition, Objectives, Need

Types of Counseling, Meaning, Characteristics, Steps, Advantages, Limitations

Relationship and difference between guidance and Counseling

**UNIT III**

Role of testing techniques in guidance, use of psychological tests, personality tests and aptitude tests in guidance

Non-testing techniques in guidance ó interview, observation, case-study, cumulative record, sociometry

**UNIT IV**

Counselor ó Qualities and Functions

Guidance and counseling during adolescence ó vocational, choosing life-partner, marriage, parenthood and family life

**References:**

Kishore-awastha, Vivah evam Parivarik Jeevan, Alka David, Shiva Prakashan, Indore

**Paper V (Elective): SOS/HSC/E07: Psychological Testing and Measurement**

**(Credits: 03; Marks: 100)**

**Unit I:**

Introduction to psychological testing: Need, meaning, objectives, uses and design

Difference between testing and measurement

Criteria of a good psychological test; reliability, validity and standardization

**Unit II: Measurement of intelligence and creativity**

Intelligence: Meaning, types of intelligence tests; some standardized intelligence tests

Creativity: Meaning, some standardized tests of creativity

**Unit III: Measurement of aptitude and attitude**

Aptitude: Meaning, types of aptitude tests

Attitude: Meaning, attitude scales

**Unit IV: Assessment of personality**

Behavioural methods of personality assessment

Personality inventories

Projective techniques

**References:**

1. Adhunik Manovaigyanik Parikshan evam Maapan, Mahesh Bhargava, H.P. Bhargava Book House, Agra
2. Psychological Testing, Urbina Anastasi

**Paper VI (Elective): SOS/HSC/E08: Consumer Economics (Credits: 03; Marks: 100)**

**Unit 1**

Consumption ó meaning, definition, characteristics and importance

Standard of living and measure of consumption

Needs ó definition, classification, factors affecting and characteristics

**Unit 2**

Income and expenditure of consumer

Family budget ó definition, importance, types and steps in planning a budget

**Unit 3**

Consumer buying habits

Advertisements ó meaning, definition, types, advantages, disadvantages, techniques

Consumer credit ó meaning, need, types and sources

**Unit 4**

Introduction to tax and their kinds

Main taxes in India

Income tax ó meaning, characteristics, definition and importance

**Paper VII (Elective): SOS/HSC/E09: Apparel Designing (Credits: 03; Marks: 100)**

**Unit 1**

Design ó Meaning, types (structural and decorative), patterns

Introduction to principles of design in relation to apparel designing

**Unit 2**

Introduction to elements of art in relation to apparel designing  
 Colour in relation to apparel designing ó definition, dimensions, principles and schemes

**Unit 3**

Fit ó Definition, Recognizing correct fit using structural lines, balance and ease to evaluate fit.  
 Common problems encountered and remedies for fitting defects.

**Unit 4**

Fashion: Definition and principles  
 Sources of fashion  
 Factors favouring and retarding fashion  
 Some terms related to fashion industry

**Paper VIII (Elective): SOS/HSC/E10: Dissertation****(Credits: 03; Marks: 100)****Paper IX (Self Study): SOS/HSC/S03: Marriage and Family****(Credits: 03; Marks: 100)****Unit I**

Family ó Definition, functions and types (with reference to family life cycle), characteristics of family, structure of family

**Unit II**

Marriage ó Meaning, marriage as an institution, goals of marriage, Selection of life partner, Changes in marriage and their causes

**Unit III**

Marital adjustment ó factors contributing to difficulties in marital adjustment, adjustment to life partner, sexual adjustment, economic adjustment, adjustment to in-laws, adjustment to parenthood

**Unit IV**

Marriage guidance and counseling ó Meaning of counseling, factors causing tension in married life, importance of marriage guidance and counseling, areas in marriage requiring guidance

**References:**

Manav Vikas ó Shashiprabha Jain, Shiva Prakashan, Indore  
 Manav Vikas Parichay ó Shashiprabha Jain, Shiva Prakashan, Indore

**Paper X (Self Study): SOS/HSC/S06: Gender in Extension****(Credits: 03; Marks: 100)****Unit -1**

Concept of gender and gender roles

Status of women: Gender-based discrimination ó Dowry, female foeticide and infanticide, domestic violence, rape and sexual assault, harassment and exploitation, portrayal of women in mass media etc; discrimination in health, nutrition, education etc.

### **Unit -2**

Empowerment of women: Concept and areas  
National Policy for Empowerment of women

### **Unit -3**

Laws protecting women: Crime against women and the law, women and personal/family law, laws relating to property and work

### **Unit -4**

Role and functions of the Department of Women and Child Development, Central Social Welfare Board, State Social Welfare Boards, National Commission for Women  
Programs for women

### **References:**

- |  |                |           |
|--|----------------|-----------|
| 1. Bhartiya Mahilaayen: Ek Samajik Adhyayan        | Nishant Singh  | Omega     |
| 2. Bhartiya Baalak: Samajik Arthik Drishtikon      | D Arya         | Omega     |
| 3. Bharat mein Upbhokta Shiksha                    | M Tripathi     | Omega     |
| 4. Bhartiya Samaaj mein Naari                      | Sharma, Mishra | Arjun     |
| 5. Mahilaon ke Kanuni, dharmik, samajik adhikar    | Sharma, Mishra | Arjun     |
| 6. Mahila Sashaktikaran                            | Sharma, Mishra | Arjun     |
| 7. Bhartiya Nari: Vartman Samasyaen Bhavi Samadhan | Sharma, Mishra | Arjun     |
| 8. Mahilaon ke Maulik Adhikaar                     | Sharma, Mishra | Arjun     |
| 9. Gramin Vikas evam Mahila Vikas Karyakram        | KS Srivastava  | Discovery |
| 10. Stree Sashaktikaran ke Ayam                    | Kavita Sharma  | Rajat     |
| 11. Stree Vikas ki Aetihasic Ruprekha              | Kavita Sharma  | Rajat     |