

MAHARAJA GANGA SINGH UNIVERSITY, BIKANER

**SCHEME OF EXAMINATION FOR
THE DEGREE OF MASTER OF ARTS IN HOME SCIENCE**

M. A. (HOME SCIENCE)

Applicable for students seeking admission to the Two year M. A. Course in HOME-SCIENCE for the Academic Year 2024-2025



PROGRAMME BROCHURE

Home Science is an interdisciplinary field that encompasses various aspects of daily life, focusing on the well-being and development of individuals and families. Its importance lies in its holistic approach to improving quality of life through the study and application of scientific principles. The five core disciplines of Home Science are Food and Nutrition, Human Development, Clothing and Textiles, Extension and Communication, and Home Management. Food and Nutrition delve into the science of food, dietetics, and the role of nutrition in health and disease prevention. Human Development explores the psychological and physiological growth of individuals across the lifespan, emphasizing child rearing and family dynamics. Clothing and Textiles involve the study of fabrics, garment construction, and fashion design, promoting both functionality and aesthetics. Extension and Communication focus on disseminating knowledge and skills to communities, fostering development and social change. Home Management teaches efficient household management, encompassing financial planning, resource allocation, and creating a harmonious living environment.

The theoretical education in Home Science is intricately aligned with practical training, ensuring that students gain hands-on experience and develop essential life skills. This skill-based curriculum is designed to enhance employability, equipping students with the expertise needed for careers in various sectors such as healthcare, education, fashion, and community development. Additionally, Home Science education imparts value-based learning, emphasizing ethical practices, sustainability, and social responsibility. The comprehensive curriculum addresses the diverse needs of home and family, covering topics like nutrition, dietetics, child development, home designing, and consumer education. By blending scientific knowledge with practical application, Home Science prepares students to contribute meaningfully to society, promoting healthy living, efficient resource use, and overall well-being.

Programme Objectives:

The objective of this course is to cultivate responsive and responsible homemakers and skilled, talented, and productive citizens with high potential and professionalism. This is achieved by imparting comprehensive knowledge in various areas of Home Science and fostering the appropriate attitudes. The major objectives are:

- Empowering women
- Developing and enhancing skills
- Building capacity
- Fostering entrepreneurial development
- Offering student-centric and job-oriented courses

Program Outcomes (PO)

On completing Master in Arts (Home Science), the students shall be able to realize the following outcomes:

PO	Description
PO1	Foster ethical, moral, and social values to cultivate individuals who contribute positively to society.
PO2	Gain comprehensive theoretical and practical knowledge across the five branches of Home Science.
PO3	Promote the application of scientific thought to various aspects of social life.
PO4	Enhance various communication skills, including reading, listening, and speaking, to express ideas and views clearly and effectively.
PO5	Exemplify the highest standards of ethical conduct and professional behavior, while honing critical, interpersonal, and communication skills, and maintaining a commitment to lifelong learning.
PO6	Transform their knowledge and skills into entrepreneurial ventures.
PO7	Encourage problem-solving thinking rooted in scientific knowledge.
PO8	Transform their knowledge and skills into entrepreneurial ventures.
PO9	Become responsible citizens with a professional attitude.

Program Specific Outcomes(PSO)

The courses focus on skill development and capacity building to empower women to initiate their own enterprises by:

PSO	Description
PSO1	Equipping students with the necessary proficiencies for a wide variety of careers, emphasizing entrepreneurial skills and placement opportunities.
PSO2	Providing practical training and exposure through internships, field visits, project work, expert lectures, demonstrations, workshops, and seminars.
PSO3	Offering specialized courses aligned with industry and academic needs.
PSO4	Keeping students updated on national and global issues and concerns.
PSO5	Emphasizing capacity building and sensitization to help individuals, families, society, and the nation understand developmental needs, challenges, issues of concern, and potential solutions at different life stages.
PSO6	Encouraging innovative and creative ideas for entrepreneurship.
PSO7	Building capacity through curriculum-based research and scientific writing in specific subjects.
PSO8	Be competent to succeed in various competitive state and national level exams such as NET, JRF,SET, AP, dietitian , counselors etc.

Syllabus Prepared and Checked by:

S. No.	NAME	DESIGNATION	DEPARTMENT	INSTITUTION/ AFFILIATION
1	Dr. Abhilasha Alha	Professor, Convener, BOS	Home Science	Govt. M S College for Women, Bikaner
2	Dr. Nidhi Agarwal	Professor Member, BOS	Home Science	Govt. M S College for Women, Bikaner
3	Dr. Kamal Jeet Kaur	Professor Member, BOS	Home Science	Govt. BRG Girls College, Sriganganagar
4	Dr. Abha Ojha	Professor Member, BOS	Home Science	Govt. M S College for Women, Bikaner
5	Ms. Sunita Gahlot	Associate Professor Member, BOS	Home Science	Govt. M S College for Women, Bikaner
6	Dr. Vimla Dunkwal	Professor External Member	Dean, CCS, Food & Nutrition	College of Community Sc., SKRAU, Bikaner
7	Dr. Neena Sareen	Professor External Member	Extension & Communication	College of Community Sc., SKRAU, Bikaner

SYLLABUS STRUCTURE FOR I-IV SEMESTER M. A. COURSE IN HOME SCIENCE

M.A. program is a two-year course divided into four-semesters. To complete the course and award of degree, a student is required to complete 100 credits for the completion of course.

- Each theory course is of 4 credits for which there will be 6 hours of lecture/tutorial per week.
- Each practical course is of 4 credits for which there will be 8 hours of laboratory work per batch per week. A minimum of 240 hours are required as per UGC norms for the completion of laboratory work and conduct of practical examination.

The maximum marks for each course will be 50. For theory course, 50 marks will be allocated for end-semester examination of 3 hours duration. For the laboratory course, 50 marks shall be allocated for end-semester examination of 5 hours to be conducted by an external examiner.

Guidelines for the award of Internal Assessment Marks

- Continuous Comprehensive Evaluation will be adopted to find out each course level learning outcome, i.e. assignment, test, quiz, seminars.
- Individual Assignments i.e. Case Study, Practical Record, Dissertation.
- Seminar Presentation, Project Report writing.

Proper record of the Internal Assessment evaluation along with the attendance of students is required by the University for each course adopted by the institution.

Guidelines for Setting Theory Question Paper

The question paper shall consist of 3 sections.

Section-A will consist of 10 questions of 1 mark each (2 questions from each unit). Question 1-5 will be of MCQ type and 6-10 will consist of fill in the blanks.

Section-B will consist of 10 questions of 3 marks each (2 questions from each unit with internal choice).

Section-C will consist of 5 questions of 5 marks each (1 question from each unit of which 3 questions are to be attempted).

The word limit for **Section B and C** are 150 and 400 words respectively.

Pass Marks and Promotion Criteria

A candidate has to pass in internal assessment as well as theory paper and practical individually to pass each semester. The promotion criterion shall be decided by the University.

Attendance Requirement

As per the University rules.

Semester wise course and credit Distribution

Semester	Core compulsory course	Core Elective course	Practical course	Total credits
Semester 1 st	MHS6.5AECT100 MHS6.SDCCT101, MHS6.SDCCT102 MHS6.SDCCT103, MHS6.SDCCT104 (4+4+4+4)	-	MHS6.SDCCP105 MHS6.SDCCP201 (4+4)	02 Non CGPA(S/NS) 24 CREDIT
Semester 2nd	MHS6.5AECT100 MHS6 SDCCT 201 MHS6.SDCCT202 MHS6.SDCCT203 MHS6.SDCCT204 (4+4+4+4)	-	MHS6.SDCCP205 MHS6.SDCCP206 (4+4)	02 Non CGPA(S/NS) 24 CREDIT
Semester 3rd	MHS6.5AECT100 MHS6.SDCCT301 MHS6.SDCCT 302 (4+4)	MHS6S.SDCCT303 MHS6.SDCCT304 (4+4)	MHS6.SDCCP303 MHS6.SDCCP304 (4+4)	02 Non CGPA(S/NS) 24 CREDIT
Semester 4th	MHS6.5AECT100 MHS6.SDCCT401 (4) Distribution	MHS6.SDCCT402 MHS6.SDCCT403 (4+4)	MHS6.SDCCP402 MHS6.SDCCP403 (4+4)	02 Non CGPA(S/NS) 24 CREDIT

MA (HOME SCIENCE) Semester Wise Programme**(Semester 1ST)**

Course code	Course title	lecture	tutorial	practical	credits	Max. marks internal	external	Min. marks
MHS6.SAECT100	Introduction to Home Science	2	0		2			Non CGPA (S/NS)
MHS6.SDCCT101	Food Science	3	1		4	10	40	13(25%)
MH6.SDCCT102	Human development	3	1		4	10	40	13(25%)
MH6.SDCCT103	Fundamental of extension	3	1		4	10	40	13 (25%)
MH6.SDCCT104	Advance in home management	3	1		4	10	40	13(25%)
MHS6.SDCCP105	Fundamental of extension teaching			4	4	10	40	18(36%)
MHS6.SDCC106	Advances in home management			4	4	10	40	18(36%)

Semester 2nd

Course code	Course title	lecture	tutorial	practical	credits	Max. marks internal	external	Min. marks
MHS6.SAECT200	Care & Wellbeing across the Lifespan	2	0		2			Non CGPA (S/NS)
MHS6.SDCCT201	Advance nutrition	3	1		4	10	40	13(25%)
MHS6.SDCCT202	Resource management	3	1		4	10	40	13(25%)
MHS6.SDCCT203	Textile science	3	1		4	10	40	13 (25%)
MHS6.SDCC204	Children with special needs	3	1		4	10	40	13(25%)
MHS6.SDCCP205	Advance nutrition			4	4	10	40	18(36%)
MHS.SDCCP206	Children with special needs			4	4	10	40	18(36%)

SEMESTER ^{3rd}

COURSE CODE	COURSE TITLE	Lecture	Tutorial	practical	credit	Max .marks internal	external	Min.marks
MHS6.SAECT300	Life skill Education	2	0		2			Non CGPA (S/NS)
MHS6.SDCCT301	Research Methodology , stastics	3	1		4	10	40	13(25%)
MHS6.DCCT302	Sports, yoga and physical	3	4		4	10	40	13(25%)
MHS6.DCCT303	Dietetics & therapeutic nutrition	3	1	4	4 4	10 10	40 40	13(25%)
MHS6.S DCCT304	Community nummrtrion	3	1	4	4 4	10 10	40 40	13(25%)
MHS6.SDCCT303	ECCE-1ST							
MHS6.SDCC304	ECCE-1ST							
	Or							
MHS.5DCCT304	Advance human development							
MHS.DCCP304	Advance human development							
MH.SDCCT303	Fundamental of clothing construction							
MHS6.5DCCP303	Fundamental of clothing construction							
MHS6.SDCCT 304	Approval designing and marking							
MHS6.SDCCT 304	Approval designing and marking							
MHS6.SDCCP303	Communication media + approaches							
MHS6.SDCCT303	Communication media + approaches							
MHS6.DCCT304	Programme management for rural development							
MHS6.SDDCT303	Economics for the home							
MHS6.SDCCT304	Consumer protection							

SEMESTER^{4th}

COURSE CODE	COURSE TITLE	Lecture	Tutorial	practical	credit	Max. marks internal	external	Min. marks
MHS6.SAECT300	Entrepreneurship Development in Home Science	2	0		2			Non CGPA (S/NS)
MHS6.SDCCT401	Entrepreneurship management	3	1		4	10	40	13(25%)
MHS6.SDCCT402 MHS6.SDCCP402	Institutional food service mgt Institutional food service mgt	3	1	4	4 4	10 10	40 40	13(25%)
MHS6.SDCCT402 MHS6.DCCP402	Marriage & family relation Marriage & family relation							
MHS6.SDCCT402 MHS6.SDCCT402	Fabric finish Fabric finish							
MHS6.SDCCT402 MHS6.SDCCP402	Development communication advocacy Development communication advocacy							
MHS6.SDCCT402 MHS6.SDCCP402	Management of energy in household Management of energy in household							
MHS6.SDCCT403 MHS6.SDCCP403	Food processing technology Food processing technology	3	1	4	4 4	10 10	40 40	13(25%) 18(36%)
MHS6.SDDT403 MHS.SDDT403	ECCE-2 ND ECCE-2 ND							
MHS.SDCCT403 MHS6.SDCCP403	Traditional textile & costumes of India Traditional textile & costumes of India							
MHS6.SDCCT403 MHS6.SDCCP403	Mass media + social marketing Mass media & social marketing							
MHS6.SDCCT403	Housing & space management							
MHS6.SDCCP403	Housing & space management							
MHS6.SPROJ404	Dissertation/oji/rcc				4			

SEMESTER I

PAPER I

MHS6.5AECT100

INTRODUCTION TO HOME SCIENCE

Unit I

1. Basics of Home Science.
2. Meaning, Definition and scope of Home Science.

Unit II

3. Development of Home Science as a discipline.
4. Inter-relationship of Home Science with other subjects.

Unit III

5. Food and Nutrition: Meaning, definition, scope and importance.
6. Human Development: Meaning, definition, scope and importance.

Unit IV

7. Clothing and Textiles: Meaning, definition, scope and importance.
8. Extension and Communication: Meaning, definition, scope and importance.

Unit V

9. Resource Management: Meaning, definition, scope and importance.
10. Vocational opportunities in various branches of Home Science.

PAPER II

MHS6.5DCCT101

FOODSCIENCE

Objectives:

1. To provide an understanding of composition of various food stuffs.
2. To familiarize the students with changes occurring during processing and cooking.
3. To acquaint the students with usage of various foods in cookery.

Course Outcomes:

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

4. have an elementary knowledge about the foods and their constituents.
5. learn about the nutritional importance of foods.
6. gain knowledge of usage of foods in cookery.

UNIT I

1. Basic Concepts: Food, Nutrition and Nutrients; Classification and functions of food; Food Pyramid.
2. Constituents of Foods: General properties; Colloidal system; Gels; Emulsion.
3. Food Additives: Definition and Importance.

UNIT II

4. Cereals and Millets: Composition and structure, selection, processing, storage and use in various preparations. Importance.
5. Pulses and legumes: Composition and structure; Selection, processing, storage and use in various 3 preparations. Importance.

UNIT III

6. Milk and Milk Products: Composition; Uses in cookery; Effects of Heat, Enzymes, Acid and Salts on milk; Shelf Life and storage.
7. Fats and Oils: Types and Sources (Animal and Vegetable); Functional properties and uses in cookery.

UNIT IV

8. Vegetables: Composition and classification; Changes occurring during cooking; Pigments and flavour constituents.
9. Fruits: Composition; changes occurring during maturation and ripening; Post harvest changes;

Pigments and flavour constituents.

10. Sugar Cookery: Types, storage, stages of sugar cookery.

UNIT V

11. Eggs: Structure, composition and grading; Changes during storage; Uses in cookery.
12. Meat, Fish and Poultry: Structure and composition; Post mortem changes.
13. Spices & Condiments: Importance and usage in cookery.
14. Beverages: Classification and importance.

References:

1. Amerine MA, Pengborn RM, Roessler EB (1965). Principles of Sensory Evaluation and Academic Press, New York.
2. Beaton GH and Bengoa JM (eds.) (1996), Nutrition in Preventive Medicine WHO.
3. Belitz HD and Grosch W (1999) Food Chemistry Springer Verlag Berlin.
4. Bamji M.S., Rai PN and Reddy V (eds.) Food Chemistry (2nd edition) Springer, New York.
5. Anita Singh, Aharevamposhan vigyan, Star publication, Agra
6. Devinasahai (2019), Ahar Vigyan, New Age International Publisher.

PAPER III

MHS6.5DCCT102

HUMAN DEVELOPMENT THEORIES AND CURRENT TRENDS

Specific Objective :

1. Human Development Theories provides a framework for understanding human development their cognitive abilities, Social and culture leaving, Personality development behaviour and guide intentions to monioteappeal growth well-being across the lifespan.

Outcomes :

1. Development tasks in human development are essential for individuals to achieve a prese of accomplishment, happiness and fulfillment across their life plan.
2. Identify psychosocial development stages, levels of human needs, key factors in social leaving.
3. Understand the role of social integration in leaving.
4. Foster healthy development in early years, improved cogache, social and enohonal skills.
5. Improved self-awareness, self-regulation and relationships is adolescent period with suffer transions to adulthood.
6. Develop coping skills and meseverance, improved acadenic and professional skills.
7. Understand are technology for development, improved access to education, healthcare and resources.
8. eareer and occupational development and professional growth.

UNIT I

1. Human development: meaning, definition, significance, Principle of development.
2. Development tasks in stages
3. Goals and Challenges in development.

UNIT II

Principles, basic concept, implications of the theories:

4. Psycho- analytic theory of Sigmund Freud.
5. Psycho-social theory of Erik- Erikson

UNIT III

Principles, basic concept, implications of the theories

6. Allports theory of Personality
7. Maslow's theory of self- actualization.

UNIT IV

Principles, basic concept, implications of theories:

8. Lev Vygotsky's social cultural theory.
9. Albert Bandura's social learning theory

UNIT V

Principles, basic concept, implications of the theories:

10. John Bowlby's Attachment theory
11. Harry Stack Sullivan's theory
12. Current Trends in human development.

References:

1. Klem, M.D. and White, J.M(1996) family theories: An introduction, sage publications, New Delhi.
2. Valsiner; J (2000) Culture and Human development, sage , London.
3. Gilligan, C (1982),In a different voice; Psychological theory and women's Development, Harvard university Press; Cambridge
4. Armstrong, K (2005)..A-short history of Myth, Penguin Books ltd; London

PAPER – IV
MHS6.5DCCT103
FUNDAMENTALS OF EXTENSION TEACHING

Objectives –

1. To understand the concept and the process of Extension Education.
2. To learn about the various Extension teaching methods.
3. To develop an elementary knowledge about extension teaching aids.

Course Outcomes:

After Completion of the paper, the student will be able to :

1. have elementary knowledge about the process of extension education.
2. have knowledge about the major extension teaching methods and extension teaching aids.

UNIT - I

Extension Education

1. Meaning, definition & concept of Extension Education.
2. Aims & Objectives of Extension Education.
3. Qualities of an Extension Worker.
4. Role of Extension Worker.

UNIT - II

Extension Education Process

1. The principles of Extension Education.
2. Philosophy & Scope of Extension Education..
3. Adoption of Innovation - Steps involved, Diffusion, Types of learners.
4. Basic elements of Extension Education Process.

UNIT - III

Extension Teaching Methods

1. The concept and importance of Extension Teaching Methods.
2. Classification of Extension Teaching Methods.
3. Characteristics, Advantages and Limitations of various Extension Teaching Methods.
4. Selection of teaching methods in Extension Education - Important Considerations.

UNIT - IV

Learning and Motivation

1. Learning - Definition, Concept, Meaning, Factor affecting learning process.
2. Motivation - Definition, Kind of motives, Procedures techniques.
3. Leadership- concept and importance.
4. Role of learning and motivation in Extension Education.

UNIT - V

Extension Teaching Aids

1. An introduction about various teaching aids - Advantages and Limitations in Extension Education Process -
 - a. Audio teaching aids
 - b. Printed teaching aids
 - c. Audio-visual teaching aids
 - d. Folk Media
2. Criteria for selection of audio-visual aids in Extension Teaching.

References:

1. Dahma, O.P. and Bhatnagar, O.P. Education and communication for development oxford and IBH Publishing Co. New Delhi, 1991,
2. Ray, G.L. Extension communication and management, NayaPrakashan, Calcutta, 1991
3. Sandhu, A.S. Extension programme planning, oxford and IBH Publishing co. New Delhi, 1994.

- 4 Supe, S.V. An introduction to Extension Education oxford and IBH Publishing co.New Delhi, 1987.
5. Advi Reddy, Extension Education, Baptata Publications, Baptala, Guntur, AP.
- 6 Lytibs, Rolf P. and Pak Training and development, 1998.
- 7 Mishra, D.C. New Directions in Extension training, 1990.
8. Mohanti, B.B. A handbook of Audio-Visual aids, KitabMahalPvt. Ltd., Jaipur, 1962.

PAPER V
MHS6.5DCCT104
ADVANCES IN HOME MANAGEMENT

Objectives:

1. To understand the basic concepts of resource management.
2. To acquaint students with functions of management.
3. To impart basic knowledge about family economics.

Course Outcomes:

4. Have elementary knowledge about resources and decision making.
5. Gain knowledge on functions of management.

UNIT I

1. Management: Evolution, Concept, Objectives.
2. Nature, Philosophy and Principles of management.

UNIT II

2. Resource: Meaning, Classification, Importance, Factors affecting Human resource.
3. Decision Making: Concept, Types, Tools and Techniques.

UNIT III

4. Planning: Concept, Nature, Purpose, Principles and Techniques.
5. Controlling: Concept, Objectives and Principles.

UNIT IV

6. Organizing: Concept, Nature, Purpose, Principles and Types.
7. Directing: Concept, nature, Types and Significance.
8. Evaluation: Concept, Tools and Techniques.

UNIT V

9. Family economics: Importance of Budget, Saving, Investment and Tax Planning.
10. Family environment: Concept and Management, Impact of environment on family resources, measures of improving quality of life.

REFERENCES

1. Kapur, S.K. Professional Management S.K. Publishers, New Delhi, 1996.
2. Dwivedi, R.S. Dynamics of Human Behaviour of work oxford and IBH, New Delhi, 1981.
3. Saiuadain, M.S. Human Resources management, Tata Mc-Graw Hill, New Delhi, 1988.
4. Dayal, R. Dynamics of Human Resources Development, Mittal Publications, New Delhi, 1996.
5. Rao, N.P. Human Resources Development in Management and Administration, B.K. Publishers, Delhi, 1986.
6. Karnik, V.G. Personal Management, Jain, Bombay, 1984.
7. Decon, R.E. and Fire Baugh, F.M. Home-management concept and context, Noughtion, Miffen Boston, 1975.
8. Decon, R.E. and Fire Baugh, F.M. Resource Management Principles and Application, Allyn and Bacon, Boston, 1981.
9. Gross, I. and Crandall, E. "Management for modern families".
10. Swanson – "Management system".
11. Aveny, H. Household physics, Mac Millan Co.

Laboratory I
MHS6.5DCCP105
FUNDAMENTALS OF EXTENSION TEACHING

1. Survey of slum/ rural/ urban community and need assessment.
2. Preparation and use of selected teaching aids in home science
3. Review of different forms of advertisement.
4. Detailed study of the media for advertisement (content, techniques and appeal).
5. Preparing a Social advertisement.

DISTRIBUTION OF MARKS

Max Marks:50

Time: 3 hours

Sessional and File	:	10
Development of teaching aid	:	15
Preparation of an advertisement	:	15
Viva	:	10

Laboratory II
MHS6.5DCCP106
ADVANCES IN HOME MANAGEMENT

1. Survey on Resources: Conduct a basic survey to find out what resources are used in a household.
2. Budget planning for LIG, MIG and HIG families.
3. Knowledge about various saving and investment schemes.
4. Project planning and Report writing.

DISTRIBUTION OF MARKS

Max Marks: 50

Time: 3 hours

Sessional and File	:	10
Development of resource file	:	15
Preparation of a project	:	15
Viva	:	10

SEMESTER II

PAPER VI MHS6.5AECT200

CARE & WELLBEING ACROSS THE LIFESPAN

Unit I

1. **Definition and concept of care.**
2. **Vulnerable periods of life: pregnancy, lactation, infancy, adolescence and oldage.**

Unit II

3. **Wellbeing- physical, psychological and spiritual.**
4. **Factors promoting wellbeing.**

Unit III

5. **Care and wellbeing in pregnancy and lactation.**

Unit IV

6. **Care and wellbeing in infancy and childhood.**

Unit V

7. **Care and wellbeing in adolescence, adulthood and oldage.**

PAPER VII

MHS6.5DCCT201 ADVANCENUTRITION

Objectives:

1. To get an insight into macro and micro-nutrients.
2. To provide an understanding of various nutrients and their functions in human body.
3. To understand the mechanisms adopted by the human body.
4. Apply the knowledge in understanding the essentials of meal planning and practically plan meals for people in different age group.
5. Prepare a project/ teaching aid or field assignment as per the knowledge gained.

Course Outcomes:

6. Gain knowledge of macro and micro-nutrients.
7. Acquire basic knowledge of factors to be considered while planning meals for various age and physiological groups.

UNIT I

1. RDA: Definition, Importance, Reference Man and Reference Woman.
2. Energy: Energy balance, deficiency and excess.
3. Macro and Micronutrients: Basic concept.
4. Carbohydrates: Definition, classification, nutritional value, functions. Dietary Fibre- Nutritional Significance.

UNIT II

5. Proteins: Definition, classification, nutritional value, functions.
6. Lipids: Definition, classification, nutritional value, functions.

UNIT III

7. Minerals: Calcium, Iron, Sodium, Iodine- Food sources, requirements, functions, deficiency.
8. Vitamins: Water soluble (B and C) and Fat soluble (A, D, E, K)- Food sources, requirements, functions and deficiency.

UNIT IV

9. Meal Planning: Definition, Objectives, Principles, Importance, Factors affecting meal planning.
10. Nutrition through the life span: Meal planning during adulthood, infancy, pre-school and school

age, adolescence.

UNIT V

11. Pregnancy and Lactation: Physiological changes, common complications, nutritional requirements. Colostrum.
12. Old age: Physiological changes, psycho-social and economic factors affecting eating behavior, nutritional requirements.

References:

1. Gopalan C. (eds.) (1993) Recent Trends in Nutrition, Oxford University Press.
2. International Child Health: A Digest of Current Information.
3. Jallinek G (1985). Sensory Evaluation of Food Theory and Practice, Ellis Harwood Chichester.
4. Srilaxmi B. Dietetics (2014), Seventh edition, New Age International Publisher.
5. Anita Singh, Aharevamposhan vigyan, Star publication, Agra
6. Devinasahai (2019), Ahar Vigyan, New Age International Publisher.
7. Beaton G H and Bengoa J M (eds.) (1996), Nutrition in Preventive Medicine WHO.
8. Bamji M. S., Rai P N and Reddy V (eds.) Food Chemistry (2nd edition) Springer, New York.

PAPER VIII
MHS6.5DCCT202
RESOURCE MANAGEMENT

Objectives:

1. To gain knowledge about resources and their management.
2. To have knowledge relating to motivation, leadership and efficiency.

Course Outcomes:

3. Develop skills in resource planning.
4. Able to apply resource management tools to home management.

Unit I

1. Resource: Definition, Types, Importance of resource management in home management.
2. Resource allocation techniques.

Unit II

3. Human Resource Management: Definition, Principles of human resource use.
4. Motivation v/s productivity, Leadership. Efficiency: factors affecting efficiency.

Unit III

5. Time management: definition, importance, techniques of time management.
6. Factors affecting time management; scheduling and prioritization.

Unit IV

7. Financial management: definition, importance. Financial planning and budgeting.
8. Expense tracking and control, saving and investing.

Unit V

9. Professional management: Introduction and concept of professional management. Factors affecting professional management.
10. Current trends in resource management: Impact of socio-economic environment on families. Role of women.

References:

1. Werther, Williams Band Davis, Keith, Human Resource and Personnel Management, McGraw Hill Inc., New Delhi, 1996.
2. Fisher, Cynthia D., Schoenfeldt, Lyle F., and Shaw, James, B., Human Resource Management, All India Publishers and Distributors, Chennai, 1997.
3. French, Wendell L., Human Resource Management, All India Publishers and Distributors Regd., Chennai, 1997.
4. Monappa, Arun, Managing Human Resources, McMillan India Limited, New Delhi, 1997.
5. Chatterjee, Bhaskar, Human Resource Management, A Contemporary Text: Sterling Publishers Pvt. Ltd, New Delhi, 1995.

PAPER IX
MHS6.5DCCT203
Textile Science

Objectives:

1. To impart knowledge of processing and properties of different types of fibres.
2. To develop understanding about fabric construction.

Outcomes:

1. The students would be able to identify the different types of fibres.
2. Understanding of yarn and fabric construction methods.

UNIT-I

1. Classification of Textile fibres.
2. General Properties of Textile fibres.

UNIT-II

3. Manufacturing process and properties of cotton, linen, wool and silk.
4. Manufacturing process and properties of Rayon, Nylon.

UNIT-III

5. Yarn Spinning, Twisting in yarn, yarn count.
6. Different methods of spinning.
7. Different types of yarn.

UNIT-IV

8. Fabric construction techniques - Felting, Bonding, Laminated fabric, Braiding, Knitting, Lacing, Weaving.

UNIT-V

9. Loom and its parts.
10. Different stages of weaving.
11. Count of cloth, Balance of cloth.
12. Classification of weave : Basic weave and Decorative Weave.

REFERENCES :-

1. Dhantyagi, Sushila , Fundamentals of Textiles and their care, Orient Longman, Mumbai.
2. Hess, K.P. ,Textile fibers and Their uses, Oxford and IBH publishing house, New Delhi.
3. Joseph, Marjory L. Introductory Textile Science, CBC College publishing, New York.
4. Hollen ,N.andSeddler J., Textiles, New York, Macmillan Company.
5. CorbmanBernard, Textile fiber to fabric, Mcgraw Hill Book Company, New York.
6. TortoraP.G. ,1978. Understanding Textile. New York. Macmillan publishing company.
7. VatsalaR. ,Textbook of Textile and Clothing. New Delhi Indian Council of Agriculture Research.
8. Vilensky, L.D. and gohl, E.P.G., Textile science, Delhi CBC Publishers and Distributers.
9. H. Nisbet,Grammer of Textile Design, D.B. Taraporevala sons & Co. Pvt. Ltd. Bombay.
10. Shenai ,V.A., History of Textile design ,Sevak publication, Mumbai.

PAPER X
MHS6.5DCCT204
Children with Special Needs

Objective :

1. Summarize causes, characterises, special education program, identification of each area of exceptionality

Outcomes :

2. To know about the Developmental Disabilities.
3. To acquire knowledge about Rights, Majors Policies and acts of children with Special Needs.

UNIT-I

13. Meaning and definition of Special Needs Children, Developmental Disabilities, Special Education.
14. Definition, Causes, (Genetic and environmental factors), Types, Treatment and rehabilitation of children with autisms, Down's syndrome, Fragile X Syndrome, Epilepsy.

UNIT-II

15. Definition, Causes, characterises, Educational Considerations and Management for : Mental retardation, Learning disabled children, Emotional Disorders, physical impairment, Multiple disorder.
16. Giftedness : Definition, Identification, Characterises of gifted children, educational considretions for gifted children managing child in school, special programs for gifted children.

UNIT-III

- Definition, Causes, Charactirtics, Educational Considerations and Management for : Sensory disabilities : Visual impairment, auditory impairment, speech impairment.
- Children with multiple disorders and their management programmes.

UNIT-IV

17. Current trends and issues in special education.
18. Inclusive, integrated and special schools.

UNIT-V

19. Role of professionals, need and importance of family centred intervention and early detection of deformities.
20. Rights, program, policies, Legal provisions and scholarship for children with special needs in india.

REFERENCES :-

11. Kirk, S.A. Education "Excepponalchildrens", HuagtonNiffhin, 1962.
12. Bootzin R.R. (1993) Abnormal Psychology current Prespectives (VIth Edition). Megraw Hill Inc, New York.
13. Weran, D. (1994) Disabled village children (India Eduhon), VHAI, New Delhi.
14. Lering, J. and Bura, G(Eds.) (1978) Integratin of handicapped children in sociaty, Routledge and Kegal Paul, London.
15. Tinbergu, N. and Tingbergu, E.A. (1983), Auhshcchildren : New Hope for a cure, Allen and Unwin, London.
16. Hegarty, S (2002), Education and children with special need, Sage Publication, New Delhi.
17. Rozario, J. and Karanth, P. (2003), Learning disability in India, Sage Publication, New Delhi.
18. Education Exceptional Children, An introduction M to special Education – S.K. Mangal, Edition-1, 29 June, 1905, Prentice Hall India.
19. Inclusive Education – For children with special Needs – Neena Dash, 12 April, 2023 Atlantic Publishers and Distribution Pvt. Ltd.
20. Educational of exceptional children – K.C. Panda 15 May, 2023 Nikas Publication.

Laboratory III
MHS6.5DCCP205
ADVANCE NUTRITION

1. Preparation of meal plans for different age groups.
2. Meal planning for LIG, MIG and HIG.
3. Presentation of Seminars.
4. Preparation of teaching aid.

DISTRIBUTION OF MARKS

Max Marks: 50

Time: 3 hours

Sessional and File	:	10
Meal planning	:	05
Preparation of TWO dishes	:	10+10
Viva	:	05
Table Setting	:	05
Menu Card	:	05

Laboratory IV
MHS6.5DCCP206
Children with Special Needs

1. Visit to organisations/institutions working for children with special needs.
2. Survey on early detection of disability in local communities [Genetic/Environmental/accidental factors]
3. Planning recreational and educational activities for children with special need.
4. Presentation of case study report.
5. Make a resource file/Role play for any one disability.

DISTRIBUTION OF MARKS

Max Marks: 50

Time: 3 hours

Sessional and File	:	10
Recreation/ Education activity (any one):		15
Resource file (on any 1 Disability)	:	15
Viva	:	10

SEMESTER III

PAPER XI

MHS6.5AECT300

LIFE SKILL EDUCATION

Unit I

1. **Definition, meaning and importance of life skill education.**

Unit II

2. **Importance of communication in imparting life skills.**

Unit III

3. **Leadership and its role.**

Unit IV

4. **Creativity and self-awareness.**

Unit V

5. **Decision making and empathy.**

PAPER X

MHS6.5DCCT301

RESEARCH METHDOLOGY AND STATISTICS

Objectives:

1. To provide an understanding of basics of research.
2. To familiarize the students with research design and its components.
3. To acquaint the students with statistics and simple statistical tools.
4. To provide knowledge about basics of Report/ Dissertation writing.

Course Outcomes:

1. **Understand basics of research, research design and its components.**
2. **Be able to use different statistical tools.**
3. **Be able to write report/ dissertation.**

UNIT I

1. Social Research: Concept, Nature. Scope.
2. Types of Research.
3. Selection of research problem.
4. Criteria of a good research.

UNIT II

5. Hypothesis: Concept, Types, Characteristics.
6. Research Design: Concept, Types, Characteristics.
7. Sampling: Concept, Types, Characteristics.

UNIT III

8. Variables: Meaning, Types, Characteristics.
9. Sources of Data Collection: Primary and Secondary.
10. Methods of Data Collection: Interview, Questionnaire, Observation, Case study.

UNIT IV

11. Statistics: Meaning and use.
12. Diagrammatic representation Of data.
13. Measures of Central Tendency: Mean, Mode, Median.

UNIT V

14. Analysis and Interpretation of data.
15. Dissertation/ Report writing.
16. Abstract: Meaning and Characteristics, Essentials in writing a good Abstract.

REFERENCES

1. Good C.V. and Carter, D.E., Methods of Research, Educational, Psychological, Sociological Applications, Century Crafts, New York, 1954.
2. Best, J.W. Research in Education, Prentice. Hall, New Delhi, 1983.
3. Kerlinger Foundations of Behavioral research New York, Holt, Rinehart and Winson Inc., 1966.
4. Doby, J.T. An Introduction to Social Research , Appleton Century Crafts, 1967.
5. Philips, B.S. Social Research Strategy and tactics, MacMillan , 1977.
6. Young ,P.V. and Schmid, C.F. Scientific Social Survey and Research, Prentice Hall, New Delhi, 1968.
7. Devdas, R.P. and Kulandaivel, K. Hand book & Research Methodology, Sri Ramakrisna Mission Vidhyalaya, 1971.
8. Shakla, M.C. and Gulshan, S.S. Statistics, Theory and Practice, Sultanchand Co., New Delhi, 1970.
9. Gupta , S. P. Statistical Methods , Sultan Chand & Co., New Delhi, 1970.
10. Bhandarkar, P.L. and Willkinson, T.S. Methodology and Techniques of Social Research, Himalaya Pub. House, Mumbai, 2000.
11. Bhatnagar, G.L. Research methods and measurement in behavioural and social science, Agri. Cole Publishing Academy, New Delhi, 1990.
12. Mukherjee, R. The quality of Life: valuation in social research, Sage Pub., New Delhi, 1989.

MHS6.5DCCT302
SPORTS, YOGA AND PHYSICAL FITNESS

Objectives:

- To make the students aware about importance of sports, yoga and physical fitness.
- To disseminate the knowledge and skill about physical training, and increase well-being through yoga and sports.

Course Outcomes:

- Be aware about value of yoga, sports and fitness.
- Have knowledge of sports, sports nutrition and weight management.
- Understand interrelationship between nutrition, exercise, physical fitness and health.

UNIT I

1. Yoga: Definition, history and importance.
2. Basic asanas and their importance.

UNIT II

1. Mudras: Definition, basic mudras and Importance.
2. Alternative systems for health and fitness like Ayurveda and meditation. Vegetarianism and traditional diets.

UNIT III

3. Sports: Types and importance.
4. Nutrition in Sports: Sports specific requirements. Diet manipulation. Pre-game and post-game meals. Study of different commercial supplements.

UNIT IV

5. Holistic approach to the management of fitness and health: Energy input and output. Diet and Exercise. Effect of specific nutrients on work performance and physical fitness. Nutrition, exercise, physical fitness and health interrelationship.
6. Water and electrolyte balance: Losses and their replenishment during exercise and sport events, effect of dehydration, sports drinks.

UNIT V

7. Significance of physical fitness and nutrition in the prevention and management of weight control, obesity, diabetes mellitus, CV disorders, bone health and cancer.
8. Nutritional and exercise regimes for management of obesity. Plateau effect and weight cycling (Basic knowledge).

REFERENCES:

1. Mahan. L.K. and Escott, S. (2000) : Krause's Food. Nutrition and Diet Therapy, 10 th Edition, W.B. Saunders Ltd.
- 2.Sizer, F. and Whitney, E. (2000) Nutrition-concepts and Controversies, 8th Edition, Wadsworth Thomson Learning.
3. Whitney, E.N. and Rolfes. S.R. (1999) : Understanding Nutrition, 8th Edition, West/Wadsworth. An International Thomson Publishing Co.

PAPER XII
MHS6.5DCCT303
DIETETICS AND THERAPEUTIC NUTRITION

Objectives:

1. To provide an understanding of basics of dietetics.
2. To familiarize the students with therapeutic nutrition and its importance.
3. To acquaint the students with diet management in some common nutritional disorders.
4. To make them understand importance of nutrition education.

Course Outcomes:

1. **Have knowledge about dietetics and therapeutic nutrition.**
2. **Able to plan diet for people suffering with common nutritional disorders.**
3. **Understand importance of nutrition education.**

UNIT I

1. Therapeutic Nutrition: Definition, Objectives, Principles.
2. Dietitian: Qualities and role. Team approach. Inter-relationship with the patient and doctor.
3. Importance of nutrition education and diet counseling.

UNIT II

4. Adaptation of normal diet: Regular, soft and liquid diet.
5. Modification of diets according to change in nutrients.
6. Methods of feeding: Normal and Artificial.

UNIT III

7. Aetiology, symptoms, diet management and counseling for the following disorders:
 - (i). Gastro-intestinal: Diarrhoea, Constipation, Peptic Ulcer.
 - (ii). Febrile Disease: Typhoid, Tuberculosis, Influenza.
 - (iii). Liver and Gall Bladder: Hepatitis, Jaundice, Cirrhosis.

UNIT IV

8. Metabolic Disorders: Diabetes, Gout.
9. Cardio-vascular Disorders: Atherosclerosis, Hypertension.
10. Cancer.

UNIT V

11. Overweight/ Obesity, Underweight.
12. Surgery.
13. Burns.

Laboratory XII
MHS6.5DCCP303

1. Planning and preparation of diets with modification in:
 - (i) Constipation, diarrhoea, peptic ulcer
 - (ii) Fever

- (iii) Cardio-vascular disorders
- (iv) Kidney diseases
- (v) Obesity, under-weight
- (vi) Liver diseases
- (vii) Diabetes
- (viii) Surgery
- (ix) Cancer

2. Market survey of commercial nutritional supplements and nutritional support substrates.
3. Preparation of diet counseling aids for common disorders.

DISTRIBUTION OF MARKS

Max Marks: 50

Time: 3 hours

Sessional and File	:	10
Planning	:	05
Preparation of TWO dishes	:	10+10
Viva	:	05
Table Setting	:	05
Menu Card	:	05

REFERENCES

1. Joshi, S.A. Nutrition of Dietetics, Tata Mc Graw Hill Pub., New Delhi, 1992.
2. Raheena Begum Textbook of Food, Nutrition and Dietetics, Sterling Pub., New Delhi, 1989.
3. Swaminathan, M. Essentials of Foods and Nutrition Vol. I and II, Ganesh and Co., 1985.
4. Robinson, C.H.; Lawler, M.R.; Chenoweth and Garwick, A.B. Normal and Therapeutic Nutrition 17th edition, Macmillan Pub. Co., 1986.
5. Ghosh, S. The feeding and care of infants and young children, VHA 6th edition, New Delhi, 1992.
6. Gopalan et al. Nutritive value of Indian Foods, NIN, ICMR, Hyderabad, India, 1989.
7. Krause, M.V. and Mahen, L.K. Food, Nutrition and Diet Therapy, W.B. Saunders Co., Philadelphia, 1990.
8. Gopalan, C. Recent trends in Nutrition, Oxford Univ. Press, 1993.
9. Swaminathan, M. Advance Textbook on Food and Nutrition, BAPPCO Ltd., Bangalore.
10. Shukla, P.K. Nutritional problems of India, Prentice Hall of India, New Delhi, 1982.
11. Gopalan, C. Nutritional problems and programmes in South East Asia.
12. Davidson, S. and Passmore Human Nutrition and Dietetics.

PAPER XIII
MHS6.5DCCT304
COMMUNITY NUTRITION

Objectives:

1. To provide an understanding of basics of community nutrition.
2. To familiarize the students with food preservation and its importance.
3. To acquaint the students with methods of nutritional assessment.
4. To give a knowledge about nutritional problems prevalent in India.

Course Outcomes:

1. Acquire knowledge about basic concepts of community and community nutrition.
2. Gain knowledge of different methods of food preservation.
3. Know methods of nutritional assessment and nutritional problems prevalent in India.

UNIT I

1. Basic concept of community nutrition, role of nutritionist in improving nutrition in community.
2. Scope of community nutrition.
3. Community health and community nutrition.
4. Food availability- factors affecting food availability and its consumption. Food distribution system.

UNIT II

5. Food spoilage. Quality assurance and food safety assurance.
6. Special foods and novel foods. Phytochemicals and nutraceuticals.
7. Food preservation- importance and methods.
8. Food adulteration- food laws and standards.

UNIT III

9. Assessment of nutritional status- Meaning; need, objectives and Techniques.
10. Primary methods-
Anthropometric measurements- Height, weight, Skin Fold Thickness, Head Circumference, Mid Upper Arm Circumference, Chest Circumference, use of growth chart; Clinical methods; Dietary survey; Biochemical methods.
11. Secondary methods-
Vital statistics; Mortality rate-crude death rate, IMR, MMR, Survival Rate; Morbidity Rate; Fertility Rate.

UNIT-IV

12. Nutritional problems prevalent in India: Anaemia, Iodine deficiency, fluorosis, Vitamin-A deficiency, Calcium and Vitamin-D deficiency.
13. National and International organisations related to nutrition: ICDS, SNP, ANP, Mid-day meal programme, Vitamin-A Prophylaxis programme, Anaemia Prophylaxis programme, FAO, UNICEF, CARE and UNDP.

UNIT-V

14. Malnutrition- definition and causes. PEM, Marasmus, Kwashiorkor, vicious cycle of malnutrition.
15. Nutrition education for the community- Planning, controlling and evaluation of nutrition education programme.

Laboratory XIII
MHS6.5DCCP304

1. Planning and preparation of nutrient rich dishes.
2. Preparation of preserved items. Display and Sale.
3. Napkin folding and table setting.
4. Study of common adulterants.
5. Labeling and pricing of food items.

6. Identification of nutritional problems prevalent in community using method of nutritional assessment.
7. Preparation of teaching aid.

DISTRIBUTION OF MARKS

Max Marks: 50

Time: 3 hours

Sessional and File	:	10
Planning	:	05
Preparation of TWO dishes	:	10+10
Viva	:	05
Table Setting	:	05
Menu Card	:	05

REFERENCES

1. Raheena Begum Textbook of Food, Nutrition and Dietetics, Sterling Pub., New Delhi, 1989.
2. Swaminathan, M. Essentials of Foods and Nutrition Vol. I and II, Ganesh and Co., 1985.
3. Prevention of Food Adulteration Act, 1954, Govt. of India.
4. Gopalan, C. Recent trends in Nutrition, Oxford Univ. Press, 1993.
5. Jelliffe, D.B. Assessment of nutritional status of the community, WHO, 1996.
6. Gopalan, C. Nutrition of health care, Nutrition Foundation of India, Special Pub. Series.
7. Many, N.S. and Sadakshar Swamy, M. Food Facts and Principles, New Age International Pvt. Ltd., New Delhi, 1987.
8. Channey, M.S. and Ross, M.L. Nutrition, Houghton Mifflin Co., New York, 1979.
9. Gopaldas, T. and Seshadri, S. Nutrition Monitoring and Assessment, Oxford Univ. Press, New Delhi, 1987.
10. Frazier, W.C. and Westoff, D.C. Food microbiology, Tata McGraw Hill Pub. Co. Ltd., Bombay, 1971.
11. Giridharilal, Siddappa, G.S. and Tondon, G.L. Preservation of fruits and vegetables, ICAR, New Delhi.
12. Kalia, M. and Sood, S. Food preservation and processing, Kalyani Pub., Ludhiana, 1996.
13. Pike, M. Food science and Technology.
14. Journal of Food Science and Technology.

PAPER XII
MHS6.5DCCT303
Early childhood Care and Education I

Course Outcomes:

1. Early childhood years are crucial for the development of children which is greatly influenced by early stimulation and preschool education.
2. Early childhood educator plays a major role in shaping the development and laying strong foundation of young children.

UNIT - I

1. Need and Importance of Earlychildhood Care and Education.
2. Aims and objective of ECCE.
3. Principles of planning of ECCE programs.
4. Major types of ECE Programme - Day Care, Ballodi, Anganwadi, Montessori, Kindergarten, Nursery.

UNIT - II

5. Contriution of Indian and Western Education in Earlychildhood Education.
6. Maria Montersori, Forebel, Russeau, Pestolozzi.
7. Mahatma Gandhi, RabindernathTagor, Swami vivekanand, ShriArbindo.
8. Major types of ECE Programme - Day Care, Ballodi, Anganwadi, Montessori, Kindergarten, Nursery.

UNIT - III

Curriculum Models of Earlychildhood Education.

9. Child Development Model.
10. The verbal/Cognitive Model.
11. Sensory/Cognitive Model.
12. The verbal/Didactic Model.
13. Programme Planning -
- Annual, Weekly, Monthly and daily planning.

UNIT - IV

14. Organization of Earlychildhood Care and Education Centres.
15. Site, bulding, classroom, equipment of preschool.
16. Low cost equipment, Games.
17. Essential records and ragisters in preschool.
18. Role and equalities of ECE personnel.

UNIT - V

19. Supervison and evaluation of ECE center.
20. Parental involvement in ECE and Education.
21. Role of different organisations in ECE like WHO, UNICEF, NIPCCD, ICDS, CARE.

Laboratory XII

1. Observation and recording of an ECE centre to observe physical setup and conduct of programs.
2. Program planning and execution: Monthly plan, weakly plan and daily plan.
3. Prepration of resource files for various ECE activities.
4. Prepare Various teaching aids according to daily, Weakly and Monthly plans.

REFERENCES

1. Anderson, R.H. and Shane, H.G. As the Twig is Bent- Readings in Early Childhood Education, Honghton, Mifflin Company, Boston, 1971. Catson, E.C. and Allen, J. Early clildhood curriculum, Macmillan Publishing Co.

2. New Delhi, 1993. Mohanty, Jaganath, Mohanti, Bhagyadhar, early childhood care and education, Deep & Deep publications, New Delhi. 1996.
3. Mohanty, Jagannath, Mohanti, Bhagyadhar, early childhood care education, Deep and Deep publication, New Delhi, 1996.
4. Singh, B., Preschool education, APH. Publishing corporation, New Delhi, 1997.
5. Morrison, George S. early childhood education Today, sixth edition by prentice Hall, 1995, New Jersey.
6. Elizabeth Hurlock, Developmental Psychology.
7. Kirk, S., educating exceptional children, IBH, New Delhi, 1970.
8. Banjanolra, Godkar Disabled in India, Somaiya Publication, Bombay, 1983.
9. Joseph, M. Abnormal Psychology, Holt Rinehart, New York, 1983.
10. Menon, R; The Teacher and the parent ministry of education, Government of India New Delhi. 1959.
11. Arya and Subhash C. Infant child care for the mother, Vikas Pub., New Delhi 1972. 11.
12. Grewal, J.S. Early Childhood Education, National Psychological Corporation, Agra, 1984.
13. Devdas, R.P. The text book on Child Development New Delhi, 1984.
14. Crow, L.D. and Crow, A. Child Psychology, Barues and Noble Books, New York.
15. Schiamberg, L.B. Smith, K.U. Parenting Magazine.
16. Smart, M.S. Smart, R.C. School Age Children Development and Relationship, Mac Millan Pub. Co., New york, 1978.
17. Elkind & Werier Development of the Child, Willey, New York. 1978. ArunaThakkar, Perspectives in Pre-school education, Popular Prakashan, Bombay,
18. Dr. K.G. Desai, Effectiveness of kinder-garten education, United Publishers, 1976.

PAPER XIII
MHS6.5DCCT304
ADVANCE HUMAN DEVELOPMENT

Objective :-

1. Students will gain insight into the growth patterns, development characteristics and activities of children in a practical situation.
2. Student will also learn to understand significant issues related to adolescents, adulthood and ageing problems.

Course Outcomes:

11. Students will gain insight into the growth patterns, development characteristics and activities of children in a practical situation.
12. Student will learn to understand significant issues related to adolescents, adulthood and ageing problems.

UNIT – I

1. Human Development – Concept, Principles, Growth & Development.
2. Prenatal Period & Birth – Prenatal Development, Genetic And environment factors affecting prenatal development, Delivery and child birth.

UNIT – II

3. Infancy – Developmental task/ Milestones
4. The Neonate (Birth to 4 Weeks) – Reflexes
5. Physical development & motor development.
6. Physiological & Sensory abilities.
7. Social, Emotional development.

UNIT – III

Early & Middle childhood- Development tasks

8. Physical & Motor Development
9. Hardness
10. Cognitive development
11. Social, emotional and moral development.

UNIT – IV

Adolescence – Development task.

12. Characteristics of pubertal changes & physical changes.
13. Physiological and Hormonal changes.
14. Growth spurt, Individual differences.
15. Early versus late maturity.
16. Reproductive & Sexual development.
17. Social Development – significance of peer and family, Heterosexual attraction, Homo sexuality
18. Parent – Child relationship.

UNIT –V

19. Adulthood & Old age – Developmental tasks.
20. Socio-emotional development: Relationship, marriage.
21. Parenting.
22. Physical & Physiological changes and ageing.
23. Cultural Perspective on ageing & death.

Laboratory XIII
MHS6.5DCCP304

1. Prepare a scrap book any relevant issues of Human development.
2. Writing a brief report on prenat/Ingrncy period of hunman development.
3. Resource file on pre school/school/adolescent human development include their soul, enohaal problem, intrest and adjustment pwel.
4. Preparahon of a brief sushnaine to identify the problems faced by aged people. repeat the information as individual case profile.

MARKING SCHEME
MAX MARKS : 50
TIME – 3 Hrs

Sessional and file	– 10
Development of resource file/ Scrap book	– 15
Puparahon of Report/ Caseshade	– 15
Vival	- 10

References:

1. Santrock J.W. (2007) life span development, Tata- Mcgrawhill, New Delhi, 3rd Ed.
2. Bee H (1995). The Developing child. Harper Collins College publisher.
3. Berk, L. (2006). Child development, Allyn&Becon, New York.
4. Rice F.P. Marriage and parenthood. Allyn and Becon Inc. Toranto.

PAPER XII
MHS6.5DCCT303
Fundamentals of clothing construction

Objectives:

- 1.To understand the basic sewing concept and sewing equipments.
- 2.To develop skill in basic sewing techniques.
- 3.To develop sensitivity towards selection of garments.

Course Outcomes:

4. Develop proficiency in taking body measurements.
5. Acquire the ability in clothing selection.

UNIT-I

- 1.Equipments for measurements, drafting & pinning, cutting, sewing.
- 2.Common problems while stitching and their remedies.

UNIT-II

1. Taking body measurement.
2. Importance of taking body measurement.
3. Techniques used in pattern making, Their advantages and disadvantages :
Drafting
Draping
Flat pattern.

UNIT-III

1. Fitting.
2. Importance of fitting.
3. Factors to be checked while fitting.
4. Reasons of poor fitting.
5. Steps for good fitting.

UNIT-IV

1. Principles of clothing construction.
2. Preparation of fabric for clothing construction.
3. Layout of paper pattern on different fabrics patterns including print, stripes, plaids and checks.

UNIT-V

1. Factors affecting clothing selection - age, sex, fashion, budget, occupation, climate, occasion etc.
2. Clothing requirements of different age groups :Infant, pre-schooler, school age children , teenager, adolescent, adult and senior citizen.
3. Selection criteria of Household fabrics: Bed sheet, curtains, carpets and towels.

Laboratory XII
MHS6.5DCCP303

1. Demonstration on sewing equipments and tools, sewing machine and its care.
2. Demonstration on taking body measurements.
3. Basic hand stitches.
4. Seam and seam finishes.
5. Darts, pleats, tucks, gathers.
6. Plackets and fasteners.
7. Piping and facing.
8. Basic Bodice Block (Children).

9. Necklines variation
10. Yokes Variation.
11. Collars Variation.
12. Sleeve Variation.

REFERENCES :-

1. Doongaj, S. and Deshpande, R., Basic Processes and clothing construction, New Delhi, New Raj Book Depo.
2. Erwin, M.D. etal. Cloting for moderns, New York, Macmillan Publishing Co.
3. Mansfield, E.A. and Lucas, E.L., Clothing Construction 2nd ed. London. Houghton Mifflin Company.
4. Sodhia, M. Advanced drafting and draping, New Delhi, Kalyani publisher.
5. Tate, M.T. and Glisson, O. ,Family clothing, New York. John wiley and sons.
6. Sannapapamma, K.J. and Jahan, S,. Fundamentals of Clothing Construction.
7. Lewis V.S. ,Comparative clothing construction Techniques, Minneosta, Burgess Publishing Company.

PAPER XIII
MHS6.5DCCT304
Apparel Designing and Marketing

Objectives:

1. To understand the basics of fashion.
2. To impart the knowledge about elements and principles of design.
3. To understand the fashion merchandising.

Course Outcomes:

1. Being aware about fashion.
2. Apply the knowledge of elements and principles in design interpretation.
3. Awareness about consumer problems and their solutions.
4. Develop proficiency in drafting, cutting and stitching.

UNIT-I

1. Fashion Terminology
2. Fashion Cycle
3. Principles of fashion
4. Factors favouring and retarding fashion

UNIT-II

5. Elements of design and their application in apparel Designing
6. Principles of design and their application in apparel Designing
7. Types of Design - Structural design, Applied design
8. Different types of Motifs

UNIT-III

9. Readymade garments - meaning, advantages and limitations
10. Consumer problems related to textiles
11. Solution of Consumer problems
12. Quality Control – Labelling (Definition, Types and Importance)

UNIT-IV

- Fashion merchandising: Meaning
- 13. Advertising :Meaning and Types
- 14. Advertising media: Types and role
- 15. Channels distributions: Meaning and Types
- 16. Online Business

UNIT-V

17. Women Entrepreneurship in Fashion marketing :
 - a. Current scenario
 - b. Challenges
 - c. Remedies

Laboratory XIII
MHS6.5DCCP304

1. Drafting, Cutting, Stitching and Finishing of following garments:
Children garments - party wear frock/party wear gown/Lehnga
Drafting of ladies basic bodice block and its adaptation to various garments
 - a) Upper Garments - Blouse, Kurti, Party wear gown
 - b) Lower garments - Salwar/Pant/Plazoo/Lehnga

2. Fashion portfolio

REFERENCES :-

1. Erwin Kinchen, Clothing for modern, Macmillan Publishing, New York.
2. G.J. Sumanthi, Elements of fashion and Apparel Design.
3. Gawana, E.J. and Querke, B.V. Dress 3rd ed. Illinois. Peoria chas Bennett Co. Inc.
4. Carson, B. How you look and Dress- New York. Webster Division, McGraw-Hill Book Company.
5. Rathore.,Kothari. International Marketing Ramesh Book Dept. Jaipur.

PAPER XII
MHS6.5DCCT303
Communication Media and Approaches

Objectives:

1. To develop an understanding about the communication process, A-V aids and extension teaching methods.
2. To develop skills and competence in the use of communication aids & approaches.

Course Outcomes:

21. The students will be able to have an understanding about the basic process of communication and extension teaching aids.
22. The students will be able to have appropriate skills and competence to use various communication Aids.

UNIT – I

1. Communication – concept, types, importance.
2. Communication process – Elements, Significance and characteristics of the communication elements.
3. Problems and Barriers in communication.

UNIT – II

4. Communication models – Aristotle, Leagan, Shannon-Weaver, Dahama-Bhatnagar, Berlo, I.P. Tiwari.

UNIT – III

5. Principles and criteria for preparing the following aids: poster, chart, folder, leaflet, pamphlet, flip-book, bulletin-board.

UNIT – IV

6. Communication Approaches : Concept, principles of teaching and learning in extension. – Individual, Group, Mass

UNIT – V

7. Concept, Importance and use of following extension teaching methods : - Farm & home visits, Discussions & meetings, Demonstration, Exhibition, Role play, Folk media.

Laboratory XII
MHS6.5DCCP303

1. Field Visit to any grass-root level organization working on health or social issues (Govt./NonGovt.)
2. Planning, Preparation and use of following teaching aids/ Communication media. (For Rural/ Urban Community).

Topic – Social/Development issues

- A. Folder, Leaflet or Pamphlet, Flip Book, Bulletin Board.
- B. Demonstration, Role play, Discussion, Exhibition.

Distribution of Marks

Total Marks = 50

- | | |
|--|----|
| 1. Resources file on Teaching-aids | 10 |
| 2. Seasonal work and interval | 10 |
| 3. Planning, Preparation and presentation and Teaching aid | |
| (Any one from A) | 15 |
| (Any one from B) | 15 |

References –

1. Rosengreen, K.E. – Communication: an introduction, New Delhi, Sage publication.
2. Raidu, C.S.- Communication, Himalaya publication House, Mumbai.
3. Narula, V. Handbook of communication – Models, Perspective, Strategies, Atlantic publication. Delhi.
4. Basavaprabhu, Jirli. D-Handbook of Extension education Agrobios, Jodhpur.

PAPER XIII

MHS6.5DCCT304

Programme Management for Rural Development

Objectives:

1. To understand the concept of programme planning for rural development.
2. To develop an understanding about rural development programmes.

Course Outcomes:

- The students will be able to learn about program planning required for rural development.
- The students will learn about the various rural development programmes.

UNIT – I

Community – Concept, types and characteristics.

Community organization – concept, Importance and principles

Role and Qualities of a community organizer.

UNIT – II

1. Rural Development – Concept, Importance and objectives.
2. Panchayati Raj – Concept, Structure and Functions.
3. Leadership – Concept, Selection of leader and theories.

UNIT – III

1. Extension programme – Concept, meaning, objectives and principles.
2. Programme objectives-components.
3. The steps in extension programme planning.

UNIT – IV

1. Programme planning :- Need Assessment.
2. Programme Implementation : Environment building, Problems encountered, Work plan.
3. Programme Monitoring : Meaning, Importance, Techniques.
4. Programme Evaluation : Meaning, Importance, Types and Methods.

UNIT – V

1. Rural Development Programmes/Organizations – SGSY (NRLM), MGNREGA, IAY, ICDS, DRDA
2. Role of N.G.Os in rural development.

Laboratory XIII

MHS6.5DCCP304

1. Visit to development organizations and study their structure, activities, strengths and weakness (N.G.Os/SHGs/Youth Organizations/Local units of ICDS/Start-ups)
2. Analysis and Evaluation of Government Development Programmes.
3. Need Assessment of nearly slum/rural community.
4. Planning a development program based on need assessment.
5. Designing appropriate teaching aid to support selected teaching methods.

Distribution of Marks

Total Marks = 50

- | | |
|---|----|
| 1. Survey visit report | 10 |
| 2. Sessional Work | 10 |
| 3. Planning a development program on the given topic | 10 |
| 4. Designing and Presentation of Teaching aids to support the selected teaching method. | 20 |
| (Any 2 Selection One from each category) | |
| ▪ Individual | |
| ▪ Group | |
| ▪ Marks | |

References –

1. Singh K. – Rural Development – principles policies and Management, Sage publication, New Delhi.
2. Reider, D.- Evaluating Development, Programme and projects, Sage publication, New Delhi.
3. Grover, I. – Extension Management, Agrotech Pub.
4. Dahama, Bhatnagers O.P.-Education and communication for development, oxford & IBH.
5. Tripathi, P.C and Reddy, P.N. – Principles of Management, Tata McGraw Hill, New Delhi.
6. Adhikari, MM-Participatory planning and project Management in Extension Sciences, Agrotech Publication. Academy.

PAPER XII
MHS6.5DCCT303
ERGONOMICS FOR THE HOME

Objectives:

1. To study the basics of ergonomics.
2. To study the principles of designing in terms of work efficiency.
3. To assess the work pattern and practices in relation to ergonomics.
4. To acquaint students with various environmental parameters.

Course Outcomes:

1. Gain knowledge about ergonomics and work efficiency.
2. Get a concept of work simplification.
3. Understand environmental factors affecting work efficiency.

Unit I

1. Definition, objective, scope and importance of ergonomics in homes.
2. Nature of work in household activities.
3. Study of different body postures used in various activities and their relationship to fatigue.
4. Factors affecting physical work capacity.

Unit II

1. Definition of Human Anthropometry, Static and Dynamic Anthropometry.
2. Measuring techniques and importance.
3. Application of Anthropometry in designing household equipment.
4. Anthropometric dimensions of workers at work and at rest, normal and maximum vertical and horizontal reaches.
5. Selection of household equipment according to ergonomics.

Unit III

1. Work simplification.
2. Meaning and importance.
3. Principles and techniques of work simplification.
4. Wrong work practices.

Unit IV

1. Environmental factors in relation to occupational ergonomics: Physical characteristics of task.
2. Environmental stress factors such as heat, Noise and Light; their effect on work efficiency.

Unit V

1. Humanizing Design: Concept and importance.
2. Design and human compatibility. Comfort and adaptability.
3. Design for elderly, children, and differently abled individuals.

Laboratory XII
MHS6.5DCCP303

1. To record anthropometric measurements: structural and functional.
2. Measurement of ergonomic cost of work for different household activities.
3. Measurement of various environmental parameters.
4. Assessment of work pattern and practices by common man in relation to ergonomics.

Distribution of Marks

Total Marks = 50

1. Resources file on Anthropometric measurements	10
2. Seasonal work and internal	10
3. Planning, Preparation and presentation	
(Any one from point 3)	15
(Any one from point 4)	15

References:

1. Gross I.H. and Crendall, E.W. and Knoll, M.M. - Management for Modern Families, Prentice Hall Inc. New Delhi.
2. Grandjean and Etienne (1978) - Ergonomics of the Home, Taylor and Francis Ltd. London.
3. Nickell and Dorsey, Management in Family Living.
4. Nag, P.K. (1996) Ergonomics and Work Design and Emerging Issues in Organizational Science, New Age International (P) Ltd, New Delhi.
5. Chaffin D.B. and Anderson G.B. (1984) Occupational Bio-Mechanics, John Wiley & Sons.

PAPER XIII
MHS6.5DCCT304
Consumer Protection

Objectives:

1. To understand consumer and his demands.
2. To comprehend the needs and demands in the local and international markets.
3. To understand the concept of market.
4. To give knowledge about consumer protection.

Course Outcomes:

1. **Be able to understand the consumer and the market.**
2. **Gain knowledge about consumer protection laws.**

Unit I

1. **Consumer: definition, consumer economics.**
2. **Consumer and his wants, origin of human wants. Characteristics of wants, classification of wants. Demand.**

Unit II

3. **Consumer behavior: factors affecting choice and decision making. Motivation.**
4. **Needs, wants and desires. Difference and factors affecting it.**
5. **Diminishing marginal utility and law of equi-marginal utility.**

Unit III

6. **Market and marketing: Concept and definition.**
7. **Classification of markets: Types, characteristics and importance.**

Unit IV

8. **Consumer credit: definition, importance.**
9. **Types of credits: Credit card, personal loans, mortgage. Factors affecting consumer credits.**

Unit V

10. **Consumer protection: overview of consumer protection laws and regulations.**
11. **Consumer rights and responsibilities.**
12. **Government protection.**

Laboratory XIII
MHS6.5DCCP304

1. To survey the Banking Procedures for Consumer Credit.
2. Visit to different types of Markets –organized, unorganized, local, weekly, etc
3. Preparation of scrap book/ folder related to above.

Distribution of Marks

Total Marks = 50

- | | |
|---|----|
| 1. Resources file on Banking Procedures | 10 |
| 2. Seasonal work and internal | 10 |
| 3. Planning, Preparation and presentation | |
| (One from 2) | 15 |
| (One from 3) | 15 |

References:

1. Fred D. Reynolds and Coillliean D. Wells (1977): Consumer Behaviour, McGraw Hill Series in Marketing, New York.
2. London D.L. & Bitta A.J.D., (1986): Consumer Behaviour, McGraw Hill Book Company, New York
3. East Robert (1990): Changing Consumer behaviour, Cassal Educational Limited, Artillery House, Artillery Row, London.
4. Garman and Thomas et al (1974): The Consumer; s World Buying, Money Management and Issue, McGraw Hills Book Co., New York

SEMESTER IV

PAPER XIV MHS6.5AECT400

ENTREPRENEURSHIP DEVELOPMENT IN HOME SCIENCE

Unit I

1. **Food and Nutrition:** Nutritionist, Dietitian, Food preservation, Catering, Health and fitness coaching.

Unit II

2. **Human Development:** Pre-school education, Family counseling, Child counseling, ECCE.

Unit III

3. **Clothing and Textiles:** Fashion designing, Fabric finishing, Boutique.

Unit IV

4. **Extension and Communication:** Event management, Social marketing management, PRO.

Unit V

5. **Resource Management:** Interior designing, Hospitality management.

PAPER XV MHS6.5DCCT401

ENTREPRENEURSHIP MANAGEMENT

Objectives:

1. To study the basics of managing business related to the field of Home Science.

Course Outcomes:

1. **Be able to have basic knowledge of entrepreneurship management.**
2. **Understand functions of management.**

Unit I

1. **Entrepreneurship management:** Definition, concept, need and importance.
2. **Process of entrepreneurship development.** Types of enterprise.
3. **Role of enterprise in National and Global economy.**
4. **Government schemes and policies for the promotion of enterprises.** Institutional support in the development and management of enterprise.
5. **Entrepreneurship motivation and competency:** Important features of entrepreneurial personality.
6. **Launching an enterprise:** Environment scanning, enterprise selection, assessment of market.
7. **Functions of management,** resource mobilization, costing and budgeting.
8. **Performance appraisal and assessment.** Profitability and control measures.
9. **Market economy:** Basic definitions, types of markets, marketing environment.
10. **Strategic planning and marketing steps:** Product development, promotion and distribution. Evaluation.

References:

1. Bedekar, S.J. (1991): Marketing- Concept and Strategies, Oxford University Press, Mumbai.
2. Deacen, RE and Firebaugh, F.M. (1981): Resource Management Principles and Application, Allyn and Dacen and BacenBosten.
3. Hirtich R.D. and Peters M.P. (1995): Entrepreneurship- Starting Developing and Managing a New Enterprise, Richard D. Irwinm INC, U.S.A.
4. Memores, C.B., Principles and Practice of Marketing in India, KitabMahal
5. Meredith, G.G. et.al. (1982) Practice of Entrepreneurship. ILO, Geneva

PAPER XVI
MHS6.5DCCT402
INSTITUTIONAL FOOD SERVICE MANAGEMENT

Objectives:

1. To understand the special characteristics of food service establishment.
2. To learn techniques of manpower management.
3. To develop entrepreneurship skills in the students.

Course Outcomes:

1. Have an understanding of basics of food service institutions.
2. Learn about tools of management.
3. Be able to understand types of food services.

Unit I

FOOD SERVICE SYSTEM

1. Introduction to food service institutions, evaluation of food service industry, history.
2. Types of food service institutions: commercial, welfare, industrial, transport, hospital, military, institutional, others.
3. Principles and functions of management in food service institutions..
4. Scope and development of food service institutions in India.

Unit II

FOOD SERVICE ORGANIZATION

5. Types of organization in Food service institutions, tools of management, leadership.
6. Personnel management: selection and training, desirable qualities, personal appearance and grooming.
7. Financial management: terms used and budgeting, determining financial needs and sources of income.
8. Cost control: calculations and methods of controlling food cost.

Unit III

FOOD PURCHASE and PRODUCTION

9. Food purchase- Procedures and records involved in purchasing, receiving, storing and issuing of food materials. Factors involved in selection of raw materials.
10. Menu planning: types and writing of menu.
11. Food production: principles involved in quantity food production, standardization of recipes.
12. Standard portion sizes- definition, portioning equipment and portion control, use of left-over, quality control.

Unit IV

ORGANIZATION OF SPACE and EQUIPMENT

13. Kitchen- Type, design, storage space, service area.
14. Equipment: Types, selection, purchase and care.
15. Sanitation- Measures taken to maintain sanitation.
16. Personnel hygiene- Facilities and benefits provided to the workers.

Unit V

FOOD SERVICE

17. Food service: styles of service and objectives.
18. Food service management in institutions like hostel, hospital, cafeteria, canteen, industries, restaurant, outdoor catering.
19. Challenges and problems faced by institutions.
20. Safety at work- Measures adopted. Preventive measures to control common accidents.

Laboratory XVI
MHS6.5DCCP402

1. Preparation of recipe book.
2. Market survey.
3. Standardization of recipes. Quantity food production and cost calculation. Layout of food stalls and sale of prepared food products to develop entrepreneurship skills. Maintenance of accounts and record keeping.
4. Preparation of various types of menu cards.
5. Menu planning for various types of food service institutions.
6. Table setting.
7. Visit to various food service institutions and observation of physical facilities, menu cards, serving style, table setting, number of personnel and their work schedule, hygiene and sanitary conditions, safety measures, etc. Report writing and presentation.
8. Planning and preparation for special occasions: birthdays, festivals, packed lunches, Traditional Thali of Different States.

DISTRIBUTION OF MARKS

Max Marks: 50

Time: 3 hours

Sessional and File	:	10
Planning	:	05
Preparation of Dishes	:	20
Viva	:	05
Table Setting	:	05
Menu Card	:	05

References:

1. Marzia, M. Cathy, M. and Brighton, R. Introduction to catering, Blackwell Scientific Pub. , London.
2. Sethi, M. and Malhan, S. Catering Management: An integrated approach, Willey Eastern Ltd., New Delhi, 1993.
3. Treat N. and Richards, N. Quantity cooking, Little Brown and Co., Boston, 1996.
4. West, B.B. Wood, L. Herger, V.F. and Shugart, G.S. Food service in Institutions, John Wiley and Sons, New York, 1997.
5. Cracknell, H.C. and Nobis, G. Mastering Restaurant Service, Macmillan Master Service, Macmillan Education Ltd. (Pub) London, 1989.

PAPER XVII
MHS6.5DCCT403
FOOD PROCESSING TECHNOLOGY

Objectives:

1. To understand the basics of food processing techniques.
2. To learn processing techniques of plant and animal foods.
3. To provide knowledge about quality control and packaging.

Course Outcomes:

1. **Have basic knowledge of food processing and techniques.**
2. **Understand food processing techniques related to plant and animal foods.**
3. **Learn methods of quality control and packaging.**

UNIT I: Food processing techniques

1. Principles underlying food processing operations including thermal, radiation, refrigeration, freezing and dehydration.
2. Effect of processing on physiochemical characteristics.

UNIT II: Processing technologies for plant foods

1. Processing technology for preservation and production of variety food products during storage, handling and processing of cereals/millets and legumes, oil seeds, fruits and vegetables;
2. Food preservation by canning technology.

UNIT III: Processing technologies for animal foods

1. Processing technology for milk and milk products, egg, meat.
2. Supplementation, enrichment and fortification, fermentation and germination.
3. Food additives commonly used in food industries for colour, flavour and as preservatives; Nano materials as food additives.

UNIT IV: Quality control in food processing

1. Quality control in food industry - raw materials and finished products;
2. Waste management and sanitation in food industries.

UNIT V: PACKAGING FOR QUALITY CONTROL

1. Packaging - self-cooling self-heating packaging,
2. Micro packaging,
3. Antimicrobial packaging
4. Water-soluble packaging.

Laboratory XVII
MHS6.5DCCP403

1. Preparation of fruit preserves- jam, jelly, marmalades.
2. Preparation of vegetable preserves- pickle, sauces.
3. Preparation of dehydrated products- dried vegetables, seasonal products.
4. Baking: bread making and cookies.
5. Fruit pulping/ juice/ beverage preparation.
6. Preparation of condensed milk, paneer and cheese.

DISTRIBUTION OF MARKS

Max Marks: 50

Time: 3 hours

Sessional and File	:	10
Planning	:	05
Preparation of TWO dishes	:	10+10
Viva	:	05
Table Setting	:	05
Menu Card	:	05

REFERENCES:

1. Rao, ChandraGopala(2006).Essentialsoffoodprocessengineering.B.S.Publications.
2. Khatkar, BhupendraSinghed(2007). Foodscienceandtechnology.DayaPublishingHouse.
3. Singh,N.P(2007). Fruitandvegetablepreservation.OxfordBookCompany.
4. Ahlluwalia,Vikas(2007).Foodprocessing.ParagonInternational Publishers.
5. Sivasankar,B(2005).Foodprocessingandpreservation.Prentice-HallofIndia
6. Paul, Meenakshi (2007). Effects of food processing on bioactive compounds. Gene-TechBooks.
7. Rahman,Shafiur: (2007).2ndEdnHandbookoffoodpreservation.CRCpress.
8. Arthey,David.(2005).2ndedFruitprocessing. Springer,
9. Fellows.P(2005).2ndednFoodprocessingtechnology.woodheadpublishingcompany.
10. LewisMichael(2000).ContinuousThermalProcessingOfFoods.Aspen.
11. Koutchma,Tatiana(2007).Ultraviolet lightinfoodtechnology,CRC Press.
12. Sun, Da-Wen(2005).Emergingtechnologiesforfoodprocessing.ElsevierAcademicPress.
13. Zeuthen,Peter(2005).Foodpreservationtechniques.Woodheadpublishingltd,

PAPER XVI
MHS6.5DCCT402
MARRIAGE AND FAMILY RELATIONS

Objectives:

1. Student will gain insight into different life style, stages and family relationship through out life.

Course Outcomes:

1. To understand marriage and family needs challenges issues and factors affecting at different stages of family life cycle.
2. To acquire knowledge about different parental strategies and family welfare agencies.

Unit I

1. Marriage: Definition, importance, functions, readiness for marriage.
2. Alternatives to marriage: co-living, singlehood, child marriage, open marriage, group marriage, lesbians, gay culture. Registration of marriage. Family courts.

Unit II

3. Family: Definition, meaning, functions, family life cycle, parent-child relationship, role of family members.
4. Crisis in family life: Breakup of the family, death of the partner, prolonged illness, single parenthood.

Unit III

5. Family and societal exchanges/ influences: Work and family, education and family, health and family, religion and family, ecology and family.
6. Family as evolving and dynamic institution and current family problems.

Unit IV

7. Counseling: Definition, goals, scope, counseling techniques and limits.
8. Process of counseling, characteristics of an effective counselor.

Unit V

9. Rights and responsibilities of child, parents and society.
10. Family welfare programs: National and International.

Laboratory XVI
MHS6.5DCCP402

1. Plan activities and give various experiences like music, creative, science, and literature for educating pre school children and prepare teaching aids.
2. Identifying emotional and social problems among school going children and give suggestions for parents to improve it. Prepare leaflet/ pamphlet for parents.
3. Make resource file related to adolescent problems.
4. Preparation of resource file/ notice board display/ role play on alternatives to marriage.
5. Identify current family problems and laws pertaining to them.

References:

1. Govt. of India : Profile of the child in India : Policies and programme, New Delhi: Ministry of Social Welfare, 1980.
2. Duvall, E. Family Development 3rd, New York, J.B. Lippincott, 1967.
3. Khasgiwari, A. Family Dynamics: Social work Perspective, Amol Pub., 1993.
4. Smart, M.S. and Smart, R. Families developing relationships, 2nd ed., New York, McMillan Pub. Co., 1980.
5. Williamson, R.C. Marriage and Family relations, New York, John Wiley and Sons inc., 1967.
6. Chaudhary, P.D. Child Welfare and development, Atmaram and Sons, New Delhi, 1988.
7. Shanker, U. Problem Children, Atmaram and Sons Pub., New Delhi, 1978.
8. Cruickshank, W.H. and Johnson, G.U. Education of exceptional children, Prentice Hall International Inc., New Jersey, 1970.

PAPER XVII
MHS6.5DCCT403
Early Childhood Care and Education II

Objective :-

1. To gain a clear insight of child's developmental milestones.
2. To develop communication skills Though organising various developmentally appropriate activities for young children.

Learning Outcomes –

1. Early childhood years are crucial for the development of children which is greatly influenced by early stimulation and preschool education.
2. Early childhood educator plays a major role in shaping the development and laying strong foundation of young children.

UNIT - I

1. Developmentally appropriate-programme for nursery school children.
2. Fostering creativity in children through different activities.
 - a. Creative Activities.
 - b. Science Activities.
 - c. Literature Activities.
 - d. Music Activities.

UNIT – II

1. Types of Children's play.
2. Indoor and outdoor play materials for children.
3. Play and Recreational activities for ECCE.
4. Role of play in enhancing children's development.

UNIT - III

1. Organisations of early childhood care and education centres.
 - a. Site, Building, Classrooms and equipment.
 - b. Essentials of records and reports in preschool.
 - c. Role of ECCE Personnel.
 - d. Qualities of ECCE Personnel.

UNIT - IV

1. Program planning for ECCE Centres.
2. Principles of program planning.
 - a. Annual plan.
 - b. Monthly plan.
 - c. Weekly plan.
 - d. Daily plan.

UNIT - V

1. Supervision and Evaluation of ECE Centres.
2. Different ECE training program.
3. Challenges and New trends in ECE.

Laboratory XVII
MHS6.5DCCP403

1. Programme planning and education of –
 - a. Annual plan.
 - b. Monthly plan.
 - c. Weekly plan.
 - d. Daily plan.
2. Planning different development promoting activities.
 - a. Physical Dev.
 - b. Motor Dev.
 - c. Cognitive.
 - d. Language.
3. Preparation of teaching aid according to monthly and weekly plans.

REFERENCES -

1. Arya and Subhash C. Infant child care for the mother, Vikas Pub., New Delhi 1972.
2. Grewal, J.S. Early Childhood Education, National Psychological Corporation, Agra, 1984.
3. Devdas, R.P. The text book on Child Development New Delhi, 1984.
4. Crow, L.D. and Crow, A. Child Psychology, Barues and Noble Books, New York.
5. Schiamberg, L.B. Smith, K.U. Parenting Magazine.
6. Smart, M.S. Smart, R.C. School Age Children Development and Relationship, Mac Millan Pub. Co., New York, 1978.
7. Elkind & Werier Development of the Child, Willey, New York. 1978.
8. Aruna Thakkar, Perspectives in Pre-school education, Popular Prakashan, Bombay, 1980
9. Dr. K.G. Desai, Effectiveness of kinder-garten education, United Publishers, 1976.

PAPER XVI
MHS6.5DCCT402
Fabric Finishes

Objectives:

1. To impart the knowledge of dyeing and printing processes used in textiles.
2. To acquire knowledge of textile finishing used on different fabrics.

Course Outcomes:

1. Understanding the different types of finishing methods.
2. Acquaint themselves with dyes and printing.
3. Apply the knowledge of fabric ornamentation in value addition of fabric.

UNIT-I

1. Fabric Finishing.
2. Objectives of Fabric Finishes.
3. Classification of Finishes -
 - a. Mechanical Finishes
 - b. Chemical Finishes.

UNIT-II

1. Dyes and pigments.
2. Classification of dyes.
3. Different stages of Dyeing.

UNIT-III

1. Printing.
2. Different methods of printing.

UNIT-IV

1. Factors affecting Colour Fastness.
2. Dyeing defects and their remedies.
3. Testing of colour-fastness of the fabric.

UNIT-V

1. Fabric ornamentation - Applique Work, Fabric Painting, Salma Sitara work, Gota work and Stone work.

Laboratory XVI
MHS6.5DCCP402

1. Samples Preparation by using different Tie and dye techniques.
2. Sample Preparation by using Block printing, Stencil printing, Spray painting.
3. Sample Preparation by the use of fabric ornamentation - Applique work, Salma Sitara work, Gota work and Stone work.
4. Product Development.

REFERENCES :-

1. Joseph, M.L. Introductory textile science.
2. Shenai, V.A. Chemistry of dyes and principles of dyeing. Sevak publication.
3. Shenai, V.A. Technology of printing, Technology of Textile processing, Sevak publication.
4. Vilensky, L.D. and Gohl, E.P.G. Textile science. Delhi. CBS Publishers and Distributors.

PAPER XVII
MHS6.5DCCT403
Traditional Textiles and Costumes of India

Objectives:

1. To gain knowledge of Traditional textiles prevalent in India.
2. To study the various embroideries and costumes of India.

Course Outcomes:

1. Understand origin and importance of clothing.
2. Acquire the knowledge about Traditional textiles and costumes of India.
3. Develop proficiency in embroidery and Tie and dye .

UNIT-I

1. Origin of Clothing.
2. Importance of Clothing.
3. Psychological and Sociological aspect of clothing.

UNIT-II

1. Traditional Textiles -
Banaras - Brocade, Tamilnadoo - Kanjivaram, Kashmir - Shawls, M.P. - Chanderi, Bengal - Baluchar.

UNIT-III

1. Traditional Embroideries -
2. U.P. - Chikankari, Karnataka - Kasuti, Punjab - Phulkari, Kashmir - Kasida, Bengal - Kantha, Gujrat - Kathiawari, Rajasthan - Zari work.

UNIT-IV

1. Dyed and printed textiles of India - Patola, Bandhani, Ikat, Kalamkari, Sangneri, Bagru.

UNIT-V

1. Traditional Costumes of India - Rajsthan, Maharastra, Assam, Punjab, Gujrat, West Bengal.

Laboratory XVII

MHS6.5DCCP403

1. Basic Embroidery stitches - Any 10
2. Samples of Traditional Embroidery.
3. Bandhani/Laheria.
4. Product Development.

REFERENCES :-

1. Pandit Savitri : Indian Embroidery.
2. Dongerkery Kamla S. The romance of Indian Embroidery.
3. Bhatnagar, P. Decorative Design History in Indian Textile and costumes. Chandigarh, Abhishek Publication.
4. Chattopadhyay, K. Indian Embroidery, New Delhi, Wiley Eastern Ltd.
5. Harney J. Traditional Textile of Central Asia. London Thomsand Hudson Ltd.
6. Lubell, C. Textile Collection of the world. London United States Publication.
7. Mehta . Master place of Indian Textile D.B. Trapporevale sons and Co. Pvt. Ltd.
8. Treasure of Indian textiles, Calico museum Ahmedabad Mary publication, Bombay.
9. Kefgen, M. and Phyllis, T.S. Individuality in clothing selection and personal Appearance. New York. The macmillan Company.
10. Rosencranz, M.L. clothing concept - A Social and psychological Approach. New York. The Macmillan Company.ltd.

PAPER XVI

MHS6.5DCCT402

Development communication and Advocacy

Objectives:

1. To understand the concept of adult learning and adoption.
2. To have an overview about Development communication and advocacy.

Course Outcomes:

1. The students will have an understanding about adult learning and adoption of innovation.
2. The students will learn about the concept of development communication and advocacy.

UNIT – I

Adult learning and participation

1. Adult learning-concept and components in Extension.
2. Relationship between communication and extension-considerations in adult learning.
3. People's participation and social mobilization in development.

UNIT – II

Development communication and media

4. The meaning and concept of development communication.
5. ICTs- concept, definition and scope in development communication.
6. Traditional media – types, characteristics, Role in development communication.

UNIT – III

Innovation and adoption

7. Diffusion of innovation.
8. Adoption of innovation.
9. Types of learners.

UNIT – IV

Social Advocacy

10. Advocacy – meaning, purpose and types.
11. Tools, Techniques and approaches of advocacy.
12. Elements of an advocacy strategy.
13. Advocacy planning cycle.

UNIT –V

Digital Communication

14. Digital communication – concept, types, reach and access.
15. Social Media - concept, types, reach and access.

Laboratory XVI

MHS6.5DCCP402

1. Designing Media for development communication.
2. Seminar Presentation on Selected Developmental issues.
3. Advocacy Campaign – planning advocacy campaign.

Distribution of Marks

Total Marks = 50

- | | |
|--|----|
| 1. Resource file of designed media/aids | 10 |
| 2. Seasonal and seminar presentation | 10 |
| 3. Planning advocacy campaign. | 10 |
| 4. Preparation of communication aids/media for different stages of advocacy.
(Any 2 aids) | 20 |

References –

1. Narula, Uma – Development Communication, New Delhi, Hariand publication.
2. Paulo Mefalopulos – Development Communication Source Book Broadening the boundaries of communication, the world bank.
3. Subedi, N.R. – Advocacy Strategies and approaches : A Training of Tailors Manual International.
4. Hiton, S. and Larissa, H. – Understanding social media, Sage publication.

PAPERF XVII
MHS6.5DCCT403
Mass media and social Marketing

Objectives:

1. To develop knowledge about various mass media channels.
2. To understand the concept of social marketing.

Course Outcomes:

1. **The students will have knowledge about various mass media channels.**
2. **The students will development understanding about social marketing.**

UNIT – I

1. Mass media – concept, meaning, functions & Characteristics.
2. Scope of Mass media.
3. Ethics in media.

UNIT – II

4. Print media.
5. History and development of print media.
6. Essentials of good writing.
7. Forms of print media.
8. Newspaper – Role and advantages.

UNIT – III

9. Radio.
10. History and development of broadcasting.
11. Principles of writing for radio.
12. Different styles of radio broadcast – News Writing, Feature, Talk, Interview.

UNIT – IV

13. Television.
14. Principles of writing for T.V.
15. Styles of programmes for T.V. – News writing, Interview, Advertisement, Documentary.

UNIT –V

16. Social Marketing.
17. Meaning and Concept.
18. Types of Advantages.
19. Social Advertisements.
20. IEC Material for Radio, T.V., Newspapers.

Laboratory XVII

MHS6.5DCCP403

1. Resource file content analysis Government ICE material/Govt. Advertisement (Social) for newspapers.
2. Writing scripts on selected development issues for Radio & T.V. Programmes.
3. Designing advertisement on social issues for print media, radio, T.V. etc.
4. Writing News and feature for print media relating to home science issues.

Distribution of Marks

Total Marks = 50

- | | |
|--|----|
| 1. Resource file and Internal Assessment | 10 |
| 2. Script Writing. | 10 |
| 3. Social Advertisement. | 10 |
| 4. Writing Press Note. | 20 |

References –

1. Joshi. V. Mass communication and media, Annual Publication Pvt. Ltd. New Delhi.
2. Radio, C.S. Communication, Himalaya, Publishing House, Mumbai.
3. Arora H. – Writing for media, K K Publication, New Delhi.
4. Shams. N-Journalism, Language, Expressing, Annual Publication Pvt. Ltd. Delhi.
5. Dhama. D.O. and Bhatnagar – Education and Communication for Development oxford and IBH publishing Co. New Delhi.
6. Keval Kumar – Mass communication in India, Jaico Publishing, House, Ahmadabad.

PAPER XVI
MHS6.5DCCT402
MANAGEMENT OF ENERGY AND HOUSEHOLD EQUIPMENT

Objectives:

1. To understand the concept of managing energy and household equipment for better output.

Course Outcomes:

1. Have knowledge about sources of energy.
2. Understand basics of energy conservation.
3. Be able to understand equipment and their usage in house.

UNIT I

1. Energy: Meaning and importance.
2. Sources of energy: Renewable and non-renewable; conventional and non-conventional; commercial and non-commercial.

UNIT II

3. Conservation of energy: Definition, concept and need.
4. Principles of improving efficiency of household equipment.

UNIT III

5. Heat exchange and energy conservation.
6. Proper use and maintenance of domestic heating, lighting, cooking and other appliances.

UNIT IV

7. **Basics of Household equipment: Definition, classification and usage.**
8. **Points to be considered while purchasing household equipment.**

UNIT V

9. **Basic terminology related to household equipment: power source, voltage, resistance, current, AC/DC sources, conductor, insulator, main cord, switch, plug, socket, thermostat, light bulb, heating element, motor, fan etc.**
10. **Safety against household appliances: Definition and classification of safety, electric shock and its prevention, quality control provisions and norms. Testing equipment and use.**

Laboratory XVI

MHS6.5DCCP402

1. Survey of available household equipment and appliances available in the market.
2. Study of basic function and mechanism of some household equipment.

Distribution of Marks

Total Marks = 50

- | | |
|---|----|
| 1. Sessional and file | 10 |
| 2. Plan a schedule for saving energy in kitchen area | 10 |
| 3. Preparation of folder/ scrap book/bulletin board display showing various household equipment | 10 |
| 4. Role play giving lesson for energy conservation | 10 |
| 5. Viva voce | 10 |

References:

1. Avery, M. (1955): Household Physics, McMillan Co., New York.
2. Johnson B. J. (1970): Equipment for Modern Living, McMillan Co., New York
3. Wilson P. (1981): Household Equipment Selection and Management, Houghton Mifflin Co., Boston.
4. Reddy B. S. (1998) Urban Energy Systems, Concept Publishing Co., New Delhi
5. Rai G. D. (1996): Non-Conventional Energy, Khanna Publishers, New York.

PAPER XVII
MHS6.5DCCT403
HOUSING AND SPACE MANAGEMENT

Objectives:

1. To introduce students with the concept of space management.
2. To understand the importance of managing space with relation to needs and efficiency.

Course Outcomes:

1. Learn about the characteristics of urban and rural housing.
2. Understand the importance of site selection and management of finances.
3. Learn about management of space in house planning.

UNIT I

1. Housing: Introduction and importance. Characteristics of houses in urban and rural areas. Effects of inadequate housing.
2. Selection of site: Importance of right selection. Factors influencing site selections. Housing needs in different stages of life cycle. Factors to be considered in selection of family housing.

UNIT II

3. Housing finance: government and non-governmental finance institutes.
4. Housing legislation and regulation: Introduction, Housing policies and schemes.

UNIT III

5. Housing standards: Introduction, importance. Importance of planning space.
6. General standards for housing- urban, rural, row housing and multistory building.

UNIT IV

7. **Home ownership and renting. Advantage and disadvantage of ownership/ renting.**
8. **Family decision on housing choice: factors affecting housing choice.**

UNIT V

9. **Interior Designing: Elements of art and principles of design. Terminology used in interior designing.**
10. Materials used in interior designing. Planning and prioritizing the space. Accessories in interior designing.

Laboratory XVII

MHS6.5DCCP403

1. Survey of available interior designing material available in the market.
2. Study of basic housing finance agencies.

Distribution of Marks

Total Marks = 50

- | | |
|--|----|
| 1. Sessional and file | 10 |
| 3. Plan a scrap book for interior designing materials | 15 |
| 4. Preparation of folder/ scrap book/bulletin board display showing various housing finance agencies | 15 |
| 5. Viva voce | 10 |

References:

1. Ball, Vietorims, K. (1980)-The of Interior Design, McMillan & Co., New York.
2. Bhatt. P. D., Goenka S (1990)-Foundation of Art & Design, Lakhani Book Depot, Mumbai.
3. Encyclopedia of Interior Design
4. Gross, I. H. and Crendall, E. W., and Knoll, M. M.-Management for Modern Families, Prentice Hall Inc. New Delhi

5. BheratheWandRedsh,K.(1986)-FamilyResourceManagement,Discovery Publishing House, New Delhi, 1994
6. CarolineAtkins,TheSundayTimes-SmallSpacesforModern Living
7. GeetikaKhanna:Theartofinteriordesigning
8. Encyclopediaofinteriordesigns
9. Ball,VietorimsK.-Theartofinteriordesign,McMillan&Co.,New York
10. NickellandDorsey-Managementinfamilyliving.CBSPublishersand Distributors, New Delhi
11. Anewsmartapproachtohomedecorating-CreativeHomeOwner-UpperSaddler,
12. River,NewJersey.

PAPER XVIII
MHS6.5PROJ404
DISSERTATION/OJI/RCC

Marks: 50

This course will be based on **preliminary research oriented topics either in theory or experiment**. The faculty members who will act as supervisors for the projects will float projects and anyone of them will be allocated to the student. After the allotment, the student shall present synopsis in the department regarding aim, objective and method(s) to carry out the research project. The department shall keep a record of the progress of the project undertaken by the students. At the completion of the project by the semester end, the student will submit Project Report which will be examined by an external examiner. The examination shall consist of (a) Presentation and (b) Comprehensive viva-voce.