

SYLLABUS OF M.A. (HOME SCIENCE)

I SEMESTER

PART I - THEORY

No.	Title	Marks			Total
		Theory	Test	Seminar	
I	Basics of Food Nutrition	80	10	10	100
I	Clinical & Therapeutic Nutrition	80	10	10	100
III	Extension Education-I	80	10	10	100
IV	Research Methodology	80	10	10	100
	Practical - Food Science and Nutrition				100
	Total				500

II SEMESTER

No.	Title	Marks			Total
		Theory	Test	Seminar	
V	Textile & Clothing	80	10	10	100
VI	Textile Designing	80	10	10	100
VII	Extension Education-II	80	10	10	100
VIII	Statistics & Computer Application	80	10	10	100
	Practical - Textile & Clothing				100
	Total				500

III SEMESTER

No.	Title	Marks			Total
		Theory	Test	Seminar	
IX	Human Development-I	80	10	10	100
X	Human Development-II	80	10	10	100
XI	Nutrition of Women & Children	80	10	10	100
XII	Health & Fitness	80	10	10	100
	Practical - Human Development				100
	Total				500

IV SEMESTER

No.	Title	Marks			Total
		Theory	Test	Seminar	
XIII	Resource Management-I	80	10	10	100
I	Resource Management-II	80	10	10	100
III	Food Preservation	80	10	10	100
IV	Entrepreneurship	80	10	10	100
	Practical - Resource Management and Entrepreneurship				100
	Total				500

MA (Home Science)

I SEMESTER

PAPER - I

BASICS OF FOOD AND NUTRITION

Marks : 80

Objectives :

This course will enable the student to

1. Understand the functions of food and the role of various nutrients, their requirements and the effects of deficiency and excess (in brief).
2. Learn about the structure, composition, nutritional contribution and selection of different foodstuffs.
3. Be familiar with the different methods of cooking, their advantages and disadvantages.
4. Develop an ability to improve the nutritional quality of food.

Theory

- UNIT-I**
1. concept of Nutrition - Food; Nutrients, Nutrition, Under and over Nutrition, Health.
 2. Functions of Food.
 3. Food groups, Balanced diet.

UNIT-I Nutrients : Macro nutrients

Classification, sources, functions
Recommended dietary allowances
Deficiency and excess (in brief)

Water

Carbohydrates

Fats

Protein

Fibre

UNIT- II Calcium

Iron

Magnesium

Zinc

Fluorine

Iodine, Selenium, Copper, Manganese

Fat-soluble vitamins (A, D, E, K)

Water soluble vitamins (Thiamine, Riboflavin, Niacin)

Vitamins C, Folic acid

Pyridoxine, Panthothenic acid, B12

UNIT-IV Food Production (in brief), Food Composition Structure nutritional contribution and selection factors for the following

Cereals and millets

Pulses

Fruits

Vegatables

Milk and milk products

Nuts and oilseeds

Meat, fish and poultry

Eggs
Sugars
Tea, coffee, cocoa, chocolate and other beverages
Condiments and spices
Processed foods

UNIT-V Methods of Cooking their Advantages and Disadvantages and Effect on Nutritive Value

Improving Nutritional Quality of Foods
Germination
Fermentation
Supplementation
Substitution
Fortification and enrichment

Reference :

- Robinson, C.H., Lawler, M.R. Chenoweth W.L. and Garwick, A.E. (1986) : Normal and therapeutic Nutrition, 17th Ed., Macmillan publishing Co.
Swaminathan, M.S. (1985) : Essentials of Food and Nutrition VI : Fundamentals Aspects VII : Applied Aspects.
Hughes, O., Bennion, M. (1970) : Introductory Foods, 5th Edn., MacMillan Company.
Williams, S.R. (1989) : Nutrition and Diet Therapy, 4th Edn., C.V. Mosby Co.

MA (Home Science)

I SEMESTER

PAPER - II

CLINICAL AND THERAPEUTIC NUTRITION

Marks : 80

Focus :

This course encompasses the various stages of the life cycle and how nutrition is critical at various stages. It briefly familiarizes students with the role of nutrition in common elements.

Objectives :

This course will enable the student to -

1. Understand the concept of an-adequate diet and the importance of meal planning.
2. Know the factors affecting the nutrient needs during the life cycle and the RDA for various age groups.
3. Gain knowledge about dietary management in common ailments.

Theory :

UNIT-I Definition of Health & Nutrition

Dimensions of Health (Physical, Psychological emotional & Spiritual)

Energy requirements - Factors affecting energy requirements.

BMR, Activity, age, climate, diet - induced thermogenesis (SDA physiological conditions)

Concept of nutritionally adequate diet and meal planning.

- (a) Importance of meal planning
- (b) Factors affecting meal planning.

Nutritional, Socio-cultural, Religious, Geographic, Economic Availability of time.

UNIT-I Nutrition through the life cycle.

(at different activity and Socioeconomic levels) requirements, nutritional problems, food selection.

- (a) Adulthood
- (b) pregnancy
- (c) Lactation
- (d) Infancy
- (e) Preschool
- (f) Adolescence

UNIT-III Principles of diet therapy

Modification of normal diet for therapeutic purposes, full diet, soft, Fluid diet, Bland diet.

Energy modification and Nutrition for weight management.

Identifying over-weight and obesity, factors contributing to obesity, prevention and treatment, low energy diets.

UNIT-IV Etiology, symptoms & diet management of the following-

Under weight - aetiology and assessment, high energy diet.

Diet for Febrile conditions & surgical condition.

Nutritional Anaemia

Fevers - Typhoid

Diarrhea, Constipation, Peptic ulcer, Jaundice, Viral Hepatitis, Cirrhosis.

UNIT-V Diet in Disease of the endocrine -

Pancreas - Diabetes mellitus - classification, symptoms, diagnosis, dietary case & nutritional, management of diabetes mellitus. Insulin therapy, oral hypoglycemic agents, special dietetic food, sweetness & sugar substitutes, diabetic coma, Juvenile diabetes.

Disease of the cardiovascular system -

Atherosclerosis Etiology & risk Factors.

Hypertension - Etiology, prevalence Nutritional management & prevention.

Renal diseases - Etiology,

Characteristic Symptoms & Dietary management of Glomerulonephritis Acute & Chronic.

References :

1. Krause, M.V. and Mohan L.K. 1986 : Food, Nutrition and Diet Therapy, Alan R. Liss. Saunders Co., London.
2. Passmore, R. and Davidson, S. 1986 : Human Nutrition and Dietetics Livingstone Publishers.
3. Robinson, C.H., Laer, M.R. Chenoweth, W.L. Garwick, A.E. 1986 : Normal and Therapeutic Nutrition, MacMillan Publishing Company, New York.
4. Williams, S.R. 1989 : Nutrition and Diet Therapy, 4th Ed., C.V. Mosby Co.
5. Shils, M.E. Olson, J.A. Shike, M. Eds. 1994 : Modern Nutrition in Health and Disease, 8th edn., Lea and Febiger a Waverly Company.

MA (Home Science)
I SEMESTER
PAPER - III
EXTENSION EDUCATION - I

Marks : 80

Theory :

UNIT-I 1 Concept of Education

- (a) Meaning of Extension
- (b) Origin of Extension

2 Extension Education Process

- (a) Environment for learning

Role of educator

Role of the people participants.

UNIT-I Concept of adult / non-formal education

- (a) Communication Process
- (b) Meaning
- (c) Purpose
- (d) Planning at different level - National to Grass roots.

UNIT-III Programmes to enhance food production

- (a) National food production programmes.

Poverty alleviation efforts.

- (a) Programmes for poverty alleviation for rural and urban areas.
- (b) Current programmes for rural and urban poor.

UNIT-IV Programmes for women and children

Women as target groups - specific measures for women and children such as DWCRA, ICDS, IMY. Current programmes for women as initiated and implemented by the different ministries and departments.

UNIT-V Advertising Media

Different media for advertising - print media, newspapers and periodicals.

Broadcast media - Television - Films.

Non-media advertising.

Outdoor advertisement - Hoardings, Posters, Black Board, Bulletin Boards, Electronic signs, Letterbins, Aerial methods.

MA (Home Science)
I SEMESTER
PAPER - IV
RESEARCH METHODOLOGY

Marks : 80

UNIT-I 1 Science, scientific methods, scientific approach.

- 2 Social research and survey: Meaning, definition, nature, scope, objects, types. distinction between social survey & research.
- 3 Pre-testing and pilot survey.

UNIT-II 4 Fact, Theory and concept.

- 5 Hypothesis : Definition, sources, characteristics, importance, main difficulties in formation of hypothesis, disadvantages, Limitations and Delimitations of the problems.

6. Sources of data : Primary and secondary sources.
- UNIT-III** 7. Methods or techniques of data collection-
- Observation,
 - Interview,
 - Schedule
 - Questionnaire,
 - Case-study,
- UNIT-IV** 8. Sampling : Meaning, Characteristics, advantages and disadvantages.
Types :
- Random sampling
 - Purposive sampling
 - Stratified sampling
 - Other sampling methods
9. Classification and tabulation of data.
- UNIT-V** Analysis and interpretation of data.
Preparation of report.
Diagrammatic presentation of data.

PRACTICAL
(Food Science and Nutrition)

Theory

Marks : 80

1. to acquire skills in food preparation techniques
2. To use appropriate methods of cooking for preparation of specific food products.
1. Weights and measures standard and household measures for raw and cooked food.
2. Cereal and flour mixtures – basic preparations (15 + 3)
 - i. Boiled rice and rice pulao
 - ii. Chapati, Puri, Paratha
 - iii. Sandwich
 - iv. Pastas
 - v. Pancakes, biscuits, cookies, cakes
3. Pulses and legumes – using whole dehusked and sprouted
4. Vegetables Preparation of Simple salads, Dry vegetables & Curries
5. Planning and preparation of normal and therapeutic diet in relation to special nutrient requirements
 1. Infancy & Childhood
 2. Pregnancy & Lactation
 3. constipation & Diarrhoea
 4. Under-weight & Overweight
 5. Peptic ulcer
 6. Jaundice, Viral Hepatitis, Cirrhosis
 7. Acute glomerulonephritis
 8. Chronic glomerulonephritis
 9. Diabetes mellitus
 - ⊕ With Insulin
 - (ii) Without Insulin
 10. Hypertension, Atherosclerosis

MA (Home Science)

II SEMESTER

PAPER - V

TEXTILE & CLOTHING

Marks : 80

Objectives :

1. To develop and understanding of different types at fibres, yarns and finishes.
2. To gain practical knowledge of dyeing, printing and weaving.
3. To develop the skills of making paper pattern for different types of garments.

Theory :

- UNIT-I**
1. classification of Textile fibers - Manufactures process, properties and uses of - Nature fibres - Cotton, Silk, Wool, Synthetic fibres - Polyester, Nylon, Acetate.
 2. Types of yarns - Simple, Novelty, Textures yarn, Yarn formation - Mechanical and chemical spinning, uses of yarns.

UNIT-I Knitting - Types of knits - Warp & weft knit advantages and disadvantages of knits and thier uses.

Non-woven - Felts, Bonded fabric, their uses, Braiding.

- UNIT-III**
1. Finishes - Purpose of finishes
 2. General finishes - Scouring, Bleaching, Tentoring, Singeing and Sizing.
 3. Special finishes - Mercirising, special calendaring waterproof and water repellent fire proof, wrinkle resistant, shrinkage control.

- UNIT-IV**
1. Dyeing - Classification of dyes - Natural and Synthetic.
 2. Different types and their suitability to different fibre, direct, acid, basic mordant, Vat Sulphur, Reactive acetate, Azo dyes and pigment colors.
 3. Different dyeing methods - Fibre dyeing, yarn dyeing and piece dyeing.

UNIT-V Principles of Clothing Construction

General principles of clothing construction. Drafting and making paper patterns.

Taking body measurements for different types of garments. Preparation of fabrics for garment making. Laying out of patterns, cutting and marking.

MA (Home Science)

II SEMESTER

PAPER - VI

TEXTILE DESIGNING

Marks : 80

Theory :

UNIT-I Experiments and principles of design : Meaning methods of creating importance.
Elements of principles of design as applied, to apparel designing - Harmony, balance proportion Rhythm & emphasis.

Elements : Lines, shapes / forms.

Colour consideration : Definition, Dimensions, Characteristics colour system and colour schemes.

UNIT-I Classification & Process of designing -
Structural
Decorative
Realistic

Abstract
Stylized
Geometric
Traditional
Big & small design

UNIT-III Fashion - Definition

- Fashion trends in India & Changes
- Theories
- Body measurements
- Tailoring tools and equipments
- Methods of taking body measurements
- For different garments
- Importance

UNIT-IV Fashion Illustrations -

- Pattern making techniques
- Flat pattern
- Drafting
- Drapping
- Disposals of fullness
- Plackets
- Frill and gathers
- Pleats and tucks
- Darts
- Patch work
- Seams and seam finishes

UNIT-V Fundamentals of Embroidery -

- Techniques, design colour, uses of different combination - threads.
- Embroidery stitch - Types.
- Types of thread, needle used for different fabrics.
- Study of traditional Embroideries of India.
- 0 Kasida of Kashmiri
- 0 Kantha of Bengal
- 0 Chichenkari of Lucknow
- 0 Kutch & kathiawar
- 0 Kasuti of Karnataka
- 0 Phulkari of Punjab
- 0 Gold & Silver (Zari work)
- 0 Applique work

MA (Home Science)

II SEMESTER

PAPER - VII

EXTENSION EDUCATION - II

Marks : 80

Objectives : To enable the student to -

1. To enable students understand the methods of teaching Home Science.

2. To acquaint the students about the role of extension - education in community development.
3. To create awareness about the role of NGO's in community development.
4. To create an awareness about the importance of public relations.
5. To understand the various programmes, favoring the wellbeing of the community.
6. To develop faith in the capacity of the people to take responsibility for their own development.
7. To understand the role of "leaders" in community development.

Theory :

UNIT-I 1. Definition, Philosophy and objectives of Home - Science, Career opportunities in various branches of Home - Science.

2. Methods of teaching Home Science, Importance of Methods.
3. Selecting the methods and making the method effective. Role of Home Science in helping to solve the problems of the community.

UNIT-I 1. Definition, scope, philosophy and objectives of extension education. Methods of teaching Extension - education, classification of the methods.

2. Role of the extension worker in community development. Role, function and contribution of Gram Sevika, Mahila Mandals, Youth Clubs, NGO's and other local agencies in Extension - Education.
3. contribution of U.N. Agencies towards Extension - education - UNESCO, UNICEF, UNDP, ECOSOC, U.N. resolution 1325.

UNIT-III Public Relations

1. Need for public relation prospects, of advertisement, campaign and propaganda in effective communication.
2. Media for social changes : Role of media in social change. Development, communication planning, organization, administration and evaluation of development communication programmes.
3. New avenues for development communication, literacy, women and development, human rights, environment. Research and feedback.

UNIT-IV 1. Adult education its meaning and objectives. Various adult education programmes in India.

2. Population education : Definition, causes and effect of population growth. Scope of Family planning services health aspect of family planning. National Family Welfare programmes.
3. Social education : Its meaning and objectives. Social education programmes in India.

UNIT-V Leadership in Extension

1. Definition of leadership, need and importance, types of leadership.
2. Methods of identifying and selecting local leaders in extension work. Role and qualities of local leaders.
3. Leadership training.

References :

1. Dr. S.V. Supe. An introduction to Extension - Education.
2. Reddy A. (1997). Extension Education, Sri Lakshmi Press, Bapatla.
3. Education and communication for Development.

4. O.P. Dahama and D.P. I Bhatnagar.
5. C.L. Adivi Reddy - Extension Education.
6. Ray G.L. - Naya Prakash, Calcutta (1999). Extension.
7. Communication and Management.

MA (Home Science)

II SEMESTER

PAPER - VIII

STATISTICS AND COMPUTER APPLICATION

Marks : 80

Theory :

- UNIT-I**
1. Statistics : Meaning, definition, scope, importance, characteristics, distrust of statistics.
 2. Measurement of central tendency-
 - a. Mean
 - b. Median
 - c. Mode
- UNIT-I** **Graphic presentation of data : Importance, types**
- Histogram
 - Frequency polygons
 - Frequency curve
 - Correlation : Definition, meaning and types.
 - Methods of determining coefficient of correlation
 - 0 Product moment method
 - 0 Rank correlation
- UNIT-III** **5. Introduction to Computer**
- What is computers ? Characteristics, components of computer system, block diagram of computer, CPU, I/O devices and memory (RAM and ROM) second storage devices (Hard disk Floppy disk, Magnetic tape etc.)
- Analysis of variance
- One way method : Direct and short-cut.
- UNIT-IV** **Computer generations -**
- Classification of computers : Analog, digital, hybrid, general and special purpose computers.
- Types of computers : Micro, mini, mainframe and super computer.
- Chi-square test goodness to fit.
- Application of student 't' test for small samples.
- UNIT-V** **Working with MS Word**
1. Getting started with word, formatting text and paragraph. Applying text and language tools. Designing pages with columns and tables, using graphics.
 2. Methods of dispersion and variation
 - a. Mean deviation
 - b. Standard deviation
 - c. Quartile deviation

PRACTICAL
(Textile and Clothing)

Marks : 100

1. Preparation of paper pattern for all groups
 - a Creeping age
 - b Preschools
 - c For Children wear
 - d For men's wear
 - e For Ladies wear
2. Adoption of the basic block to various clothes & their stitching : Saree - Blouses, Salwar, Chudidar Kameez, Petticoats, Frock.
3. Making samples of traditional embroideries of India (any five)
 - a Kashida of Kashmir
 - b Kantha of Bengal
 - c Dasuti of Karnataka
 - d Kutch Kathiawar
 - e Phulkari of Punjab
 - f Chikankari of Lacknow
 - g Gold and Silver (zari work)
4. Free hand sketching of simple objects involving various shapes and forms.
5. Drawing designs for various textile articles by adopting principles of design.
6. Drawing and colouring a colour schemes.
7. Painting designs for various textile articles by adopting principles of design.
8. Reducing various textures.
9. Creating various textures.
10. Identification of Textile Fibres
 - a Visual, Microscopic, burning and chemical
11. Garment Construction
 - a Drafring, cutting and stitching of simple graments, such as vest and bib. A- Line Dress and Knickers. Sun suit / romper.

Reference :

1. Bane, A. 1974 : Tailoring, Macgraw Hill.
2. Bane, A. 1997 : Flat pattern design, MCGraw Hill.
3. Brary Nathalie 1987 : Dress Pattern Designing London, Crossby Lockwood & Staples.
4. Gillelle, D.A. Berte, B. : Figure Types and Size Ranges, Fairchild Publication.
5. Goubloun M. 1971 : Introduction pattern cutting, Grading and Modelling, London, B.T. Batsford Ltd.
6. Glodsworthy 1980 : Simple Dressmaking, Londown, Mills and Boon Ltd.
7. Littman Conie 1977 : Pattern making design, Litton Educational Publishing Inc.
8. Muka A. 1979 : French Touch, Pittsburgh, Wolfson Publishing Co., Inc.

MA (Home Science)

III SEMESTER

PAPER - IX

HUMAN DEVELOPMENT - I

Marks : 80

Objectives :

- To make students aware of Human Development.
- To enable students become aware of early childhood education.
- To make students aware of changes and problems of adolescents.
- To enable students understand the importance and use of different psychometric tests.
- To get acquainted with the process of counseling.

Theory :

UNIT-I The Study of Human Development

- i The Three domain
 - Biosocial Development
 - Cognitive Development
 - Psychological Development.
- ii Methods of child study.
 - Scientific method, four steps.
 - Observation method -
Theoretical perspective : Use of checklist, establishing reliability in observation, maintaining observation record, record, report writing and evaluation.
 - Interview method -
 - Theoretical perspective, Development of different types of interview Protocols, analysis and coding of interview data.

- UNIT-I**
- Questionnaire method -
Theoretical perspectives, development of different types of questionnaire protocols, analysis and coding of questionnaire data.
 - Experimental method -
Theoretical perspectives, merits and demerits.

Case Study.

Theoretical perspectives, development of different types of case study protocol, analysis and coding of data.

- UNIT-III**
- iii Psychological Testing - Nature and Uses of psychological tests function and origin Psychometric method.
 - Scale for infant assessment
 - The Wechsler battery of tests
 - Children Apperception test
 - Draw a man test

- UNIT-IV**
- House tree person
 - Reven's progressive Matrices
 - Self Esteem Inventory
 - Sex role inventory

UNIT-V i Theories of Personality

- a Type approach - Hippocrates, Krishmer sheldon and Jung

- b Trait approach - Catter's
- c Type cu trait approach - Eyesenk's Theory
- d Consclusion - Humanistic perspective and development Theory.
- ii **Cognition** - Meaning of cognitive psychology.
Piagets theory of cognitive development.
- iii Contribution and shortcoming of theory.

MA (Home Science)

III SEMESTER

PAPER - X

HUMAN DEVELOPMENT - II

Marks : 80

Theory :

UNIT-I Childhood care and education (ECCE) .

- i Importance, need and scope of ECCE
Objective of ECCE Type of preschools- play centers, day care Montessori, Kindergarten, Balwadi, anganwadi etc.
- ii ECCE in India
Pre Independence Period Post Independence-
Kothari commission, Contribution of five year plan to ECCE Yeshpal committee, Maharashtra preschool centre Act.

UNIT-I

- i Organization of preschool Centers.
Concept of Organization and administration of early handhold centers, Building and equipment :-
Location and site arrangement of rooms, defferent types and size of room, play ground storage facility, selection of different types of indoor and outdoor equipments.
- ii Role and responsibilities of care giver / teacher.
Record and Report.
Types - aim and purpose/need, general, characteristic, e.g. anecdotal, cumulative sample work, medical etc.

UNIT-III Childhood, creativity and counseling

- i Early childhood - Characteristics, Developmental task skills of early childhood, Emotion during early childhood, Socialization and social behavior, Happiness and Hazards during early childhood.
- ii Late childhood - characteristics, developmental tasks, skills of late childhood, hazards and happiness of late childhood, moral Development.
Theory of Kohlberg - behaviour during late childhood.

UNIT-IV

- i Definition and concept of creativity types and degree of creativity (everyday creativity Domains Insight and problem solving as related to creativity.
Approaches to the study of creativity mystical approach (divine gift)
 - Psychology dynamical approach (freud)
 - Psycholmetric approach (Guilford and Torrance)
 - Cognitive approach (Weisberg)
 - Social personality approach (Weisberg)

- Social personality approach (Weisberg)
 - Social personality approach (Mackinnon)
 - Confluence approach (Gardner - enhancing creativity - Brain Storming Problem Solving creative dynamics and visualization).
- i Counseling - History of counseling Meaning - Need, Objectives, Functions, Qualities and Skills of counselor, Distinction between Guidance and counseling.

UNIT-V Puberty and adolescence

- i Puberty - Characteristics causes of Puberty, Primary and Secondary Sex Characteristics, Developmental, Tasks, Problems
During puberty, Happiness and interest,
Vocational interest, self discipline and family relationship
- ii Adolescence - Characteristics, Development
Tasks, physical changes, during Adolescence, sex interest and sex behaviour and causes of family during adolescence, Hazards and happiness.
- iii Mental health needs : Sense of identity autonomy, individualism, problems relate to physical appearance development and relationship. Problems related to sexuality.

Reference Books-

- 1 Child Development by Elizabeth Hurlock
- 2 Developmental psychology by Elizabeth Hurlock.
- 3 Nursery school by katherina Road.
- 4 Nursery in India by Pramila Barookh.
- 5 The psychology of Adolescent - A.T. Jersild 7th Edition Prentic Hall.

MA (Home Science)

III SEMESTER

PAPER - XI

NUTRITION OF WOMEN AND CHILDREN

Marks : 80

Theory :

- UNIT-I**
- 1 Role of women in national development.
 - 2 Women in family and community :
Demographic changes menarche, marriage, fertility, morbidity, mortality, life expectancy, sex ratio, aging, widowhood.

UNIT-I Women and health :

- 1 Policies and programs for promoting maternal and child nutrition and health.
- 2 Concept of small family. Methods of family planning merits and demerits.

UNIT-III Importance of Maternal Nutrition

- 1 Impotrance of Nutrition prior to and during pregnancy - prerequisites for successful outcome. Effect of under nutrition on mother and child including pregnancy outcome and maternal and child health- short term and long term effect.
- 2 Nutritional requirements during pregnancy :
Adolescent pregnancy, pregnancy and T.B., TUGR, gestational diabetes.

UNIT-IV 1 **Lactation :**

Development of mammary tissue and role of hormones.

- Physiology and endocrinology of lactation - Synthesis of milk component - lactational, effect of breast feeding on maternal health.
2. Human milk composition and factors affecting breast feeding. Human milk banking.
 3. Management of lactation :
Prenatal breast feeding, skill education. Rooming in problems - sore nipples engorged breast, inverted breast.
 4. Exclusive breast feeding.
- UNIT-V**
1. **Infant physiology:**
Pre-term and low birth weight infant - implication for feeding and management.
 2. Feeding of infants and children and dietary management.
 3. Malnutrition - Etiology and management.

MA (Home Science)

III SEMESTER

PAPER - XII

HEALTH AND FITNESS

Marks : 80

Objective :

This course will prepare the student to -

- Understand the components of health and fitness and the role of nutrition.
- Make nutritional, dietary and physical activity recommendations to achieve fitness and well-being.
- Develop ability to evaluate fitness and well - being.

- UNIT-I**
1. **Definitions, components of fitness**
 - a Anatomical fitness
 - b Physiological fitness
 - c Psychological fitness
 - Physiological fitness :
(a) Growth and development (b) Strength (c) Speed (d) Skill (e) Stamina, or endurance, specific fitness, general fitness, and health status.
 2. Holistic approach to the management of fitness and health : Energy input and output. physical fitness and health inter- relationship
- UNIT-I**
1. Review of different energy systems for endurance and power activity :
 - a Endurance : Definition, classification of endurance, Factors effecting endurance.
 - b Fuels and nutrients to support physical activity.
 2. Nutrition in sports : Sports specific requirement.
- UNIT- III**
1. Pre game and Postgame meals. Assessment of different nutrigenic aids commercial supplements.
 2. Diets for persons with high energy requirements, stress.
 3. Water and electrolyte balance : Effect of dehydration
- UNIT- IV**
1. Significance of physical fitness in the prevention and management of :
(i) Diabetes mellitus (ii) Cardiovascular disorders (ii) Bone health and obesity.
 2. Nutrition and exercise regimes for pre and post natal fitness.

- UNIT-V**
1. A. Defining nutritional goals/guidelines appropriate to health and prevention and management of the chronic degenerative disorders-
(a) Cardiovascular disorders (b) Diabetic mellitus
B. Various dietary regimes for weight reduction.
 2. Alternative systems for health and fitness like Ayurveda, Yoga.

MA (Home Science)

III SEMESTER

PRACTICAL

(Human Development)

Marks : 100

1. Visits to various centers, which cater to the preschool stage eg. Day care center, Balwadi, Anganwadi, Mobile Creche etc.
2. Preparing a resource unit file on the basis of play way method/approach.
3. Preparing teaching material kit and presentation in mock set up.
4. Story and their techniques, types of puppets and mobiles ? Art and craft portfolio, song booklet and low cost musical instruments. Readiness games and material picture tails and object talk related materials etc.
5. Tests of creativity Torrance test of creative thinking (TTCT) Baqyet Medhi's Indian adaptation.
6. Use of Parnes's 5 stage method creative problem solving.
7. Use of consensual assessment technique to rate the creative work of children and adults (stories, poems and artwork).
8. Conducting parent teacher meetings.
9. Reports and resource files to be maintained by students.

MA (Home Science)

IV SEMESTER

PAPER - XIII

RESOURCE MANAGEMENT - I

Marks : 80

Objectives : To enable students to -

1. Understand various concepts and principles of management and its functions.
2. Understand the significance of management in changing environment.
3. To develop the ability to use motion and time techniques.
4. To create awareness about resources.

Theory :

- UNIT-I**
1. **Aspect of home management -**
 - a. Concepts of home management
 - b. Activities involved in home management
 - c. Development of Managerial ability
 - d. Methods of evaluating ability

- 2 **Decision Making**
 - a Steps of decision making
 - b Modes of decision making - individual group, scientific, snap
 - c Techniques and tools for decision making
 - d The role of decision making in home management
 - e Stress and conflict during decision making.
- UNIT-I**
- 1 **Management as a system-**
 - a Definition and elements of general system theory
 - b Advantages and limitations of system approach
 - c Comparison of linear and system thinking
 - d Application of Resource Management in families and institutions
 - 2 **Time management-**
 - a Nature of Time
 - b Time demands in different stages of family life cycle
 - c Leisures
 - 3 **Energy Management-**
 - a Nature of Energy
 - b Energy demands in different stages of family life cycle
 - c Fatigue - (i) Physiological (ii) Psychological
- UNIT- III**
- 1 **Money Management-**
 - a Definition, meaning and importance
 - b Role of woman in managing family income budgets
 - c Techniques used in money management
 - d Contribution of working woman in improving economic conditions
 - e Family security
 - 2 **Household equipments and ergonomics**
 - a Trends in equipments available in market
 - b Equipments in the Indian HOMes. Rural and Urban families
 - c Selection of house hold equipments according to ergonomics
 - d Ergonomics in Home - Anthropometric dimension of workers at work and at rest normal and maximum vertical and horizontal reaches.
 - 3 **Work Simplification**
 - a Meaning and Importance of work simplification
 - b Principles and techniques of work simplification
 - c Wrong works Practices
- UNIT- IV**
- 1 **Community Services/Resources :**
 - a Definition, importance in daily life, local and National development.
 - b Reality and problems of community services.
 - c Role of home makers in management of these resources.
 - 2 **Resident Course :**
 - a Concept and Importance of residence course.
 - b Values, Goals, Standards, and decision making in resident course.
 - c Organization or house
 - d Rotation of duties
 - e Evolution of managerial abilities.

- UNIT-V**
- 1 Employment status of woman in India-**
 - a Need of Self employment
 - b Agencies promoting self employment to woman
 - c Function of Commercial Banks, Districts Industries Co-operative societies.
 - 2 Family Health Management-**
 - a Contribution of public and private agencies in maintaining family health.
 - b Planning of preventive measures.
 - c Annual budget for family medical care.

References :

- 1 Management for Modern families - Gross and crandall
- 2 Management in family living - Nickel and Dorsey
- 3 Motion and Time study - Alph M. Barnes
- 4 Work Simplification - Gerold Nadler
- 5 Time and Motion study - Mundel
- 6 Mome Management context & cincepts R.E. Deawn and F.M. Firebough (Houghton Muffin co-Bostan 1975)
- 7 Modern Management Issues and Ideas - Davud R. Hamption.
- 8 Ergonomics of Home - Francis and Taylon Co.

MA (Home Science)

IV SEMESTER

PAPER - XIV

RESOURCE MANAGEMENT - II

Marks : 80

Objectives : To enable students to -

To enable stgudents -

- 1 To recognize the family needs in relation to housing responsibilities housing and interiors.
- 2 To acquire basic knowledge of principles involved in residential houses and its interiors.
- 3 To rpvide knowledge of the principles of the principles and methods of creating attractive interiors.

Theory :

UNIT-I 1 History of Housing-

- Concept of housing
- Changes in housing needs and standards.
- Housing values and goals at the present time

2 Housing in India as affected by trends in-

- Population
- Economics Status
- Occupation and family mobility
- Social and cultural status.

UNIT-I 1 Cost of house and finance for housing -

- Factors influencing house
- Estimation of the cost of housing

- Ways to control and economizing the cost of housing
 - Different public and private loan scheme for housing
 - 2 Concept of Vastushastra in housing -**
 - Historical background
 - Placement of rooms
 - Location of wall
 - Placement of doors
 - Placement of accessories
- UNIT-III**
- 1 Landscaping**
 - Importance
 - Approaching, landscape design with an artistic touch space, line form texture, colour balance rhythm scale and proportion.
 - 2 Bonsai**
 - History
 - Preparation of soil
 - Selection of plants
 - Potting and repotting
 - Selection of containers
 - Care
- UNIT-IV**
- 1 Furniture -**
 - An important component of interiors
 - Modern Trends-wrought iron, nu-wood, syntax, press-woods, cane and molded furniture.
 - 2 Home Furnishing-**
 - Window Treatment -
 1. draperies,
 2. curtains,
 3. roller shads,
 4. valences,
 5. Venetian blinds.
 - 3 Upholstery fabrics -**
 - Selection of fabrics
 - Wall treatment - wall paper, paints, tiles
 - Accessories
 - (a) hanging
 - (b) relation of picture to room
 - (c) other accessories.
- UNIT-V**
- 1 Environment Management -**
 - Fundamental principles of environment and natural resources management.
 - Basic concept of ecology and its application in industrial ecology.
 - 2 Role of International organization in environment management.**

MA (Home Science)

IV SEMESTER

PAPER - XV

FOOD PRESERVATION

Marks : 80

Theory :

- UNIT-I**
1. Food and its Preservation
 2. Home and Community level including commercial operations
 3. Principles of food preservation
 4. Causes of spoilage of food.
- UNIT-II**
1. Fresh food storage
 2. Principles Plant product
 3. Storage, animal product
 4. Storage, Effect of Storage
 5. Condition on Quality
 6. Canning - Principles and methodology influence of canning on food quality storage of canned foods.
- UNIT-III Pasteurization**
1. Effect of food quality
 2. Storage of pasteurized food
 3. Drying & Dehydration
Methods Used and effect on food quality. Types of driers. Storage and deterioration of dehydrated food products.
- UNIT-IV Use of temperature -**
- Refrigeration and freezing methods, Principles and application, preparation of foods for freezing influence on food components and structure self of frozen foods.
Packing and Fermentation
Pickles, Chutneys, ketchups sauces, fermentation- types, products and method uses
Establishment of a small scale - industry/cottage industry.
- UNIT-V Chemical Preservatives**
- Preparation of Fruit, Juices squashes, Fruit Syrups, Cordials, Jam, Jelly.
High Acid & High Sugar Products
Common defects, Preservation of crystalized and glazed fruits
Nutritional Implications of food processing
Causes for loss of vitamins and minerals. Enrichment. Restoration and fortification.
- Reference :**
1. Oser. B.L. 1965 : 14 ed Hawk's Physiological Chemistry, MC Graw Hill Book Co.
 2. William S. : 16 The Ed JAOAC Official Methods of Analysis Part I to XI, Manak Bhawan, New Delhi.
 3. West E.S. Todd W.R. Mason, H.S. and Van Barageen J.T. 1974, 4th Ed Text book of Biochemistry, Amerind publishing Co. Pvt. Ltd.
 4. Devlin, T.M., 1986 : 2nd Ed. Textbook of Biochemistry with clinical Correlations John witey and sons.
 5. Murray R.K. Granner, D.K. Mayes P.A. Nd Rodwell V.W. 1993 : 23rd Ed. Harper's Biochemistry Large Mmedical Book.

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IV SEMESTER
PAPER - XVI
ENTREPRENEURSHIP

Marks : 80

Theory :

- UNIT-I**
1. Meaning and definition of Entrepreneur and Entrepreneurships.
 2. Qualities of a good Entrepreneur.
 3. Entrepreneur and his desire for Achievements
- UNIT-I**
1. **Different Forms of Business/Service Establishment :**
 - a. Franchising
 - b. Excusing agents
 - c. Distributors
 - d. Whole Sellers
 - e. Retailers
 - f. Broker/commission agent
 2. Infomation of different activities required for entrepreneurship
 3. Capacity of problem solving in entrepreneurs and managers
- UNIT- III**
1. Conducting Market surveys and collection of required data
 2. How to become successful salesperson marketing skills.
 3. Identification of business opportunities.
- UNIT- IV**
1. **Soft Skill development**
 - a. Communication
 - b. Information seeking
 2. Preparation of Preliminary Project Report (PPR)
 3. General Insurance a brief knowledge
- UNIT-V**
1. Ethics of Business
 2. Accounting : introduction procedure
 3. Working Capital / Management of cash
 4. Calculation of cost of products & Price fixation

MA (Home Science)
PRACTICAL
(Resource Management and Entrepreneurship) Max Marks : 80
Section A

1. Designing of Terrace Garden.
2. Designing of partly outdoor & Indoor Landscaping.
3. Bonsai
4. Drawing house plan for various income groups.
5. Drawing sketching of interior decorative aspect like - interior schemes of room.
6. Study of building material.
7. Preparation of art object.
8. Floor decoration - Alpna, Rangoli
9. Flower arrangement.

Section B

1. Preparation of preliminary Project Report.
2. Visit Project Report of Small Scale industries.
3. Conduction of Market survey.