GUJARAT UNIVERSITY
HOME SCIENCE POSTGRADUATE
PROGRAMMES FOR GENERAL HOME SCIENCE (COMPOSITE)
(FAMILY AND COMMUNITY SCIENCES)
CURRICULUM AS PER THE CHOICE BASED CREDIT SYSTEM
(Implemented from June-2018-19)

M. A. HOME SCIENCE
SYLLABUS FORMATE CBCS
IMPLEMENTED FROM –
JUNE 2018
SEMESTER – I

<table>
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<td>Research, Methods</td>
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M. A. HOME SCIENCE
SEMESTER I
PAPER NO. HSC 401
RESEARCH METHODS

Objective :-

(1) To understand the significance of statistics and research methodology in Home Science Research.

(2) To understand the types, rules and methods of research and develop the ability to construct data gathering instruments appropriate to the research design.

(3) To understand and apply the appropriate statistics technique for the measurement scale and design.

UNIT – I

(1) Science, scientific methods, scientific approach.
(2) Role of Statistics and research in Home science discipline.
   - Objective of research: Explanation, Control and prediction.
(3) Types of research: Historical, Descriptive, Experimental, case study, social research, participatory research.

UNIT - II

(1) Definition and identification of Research Problem.
   - Selection of research problem
   - Justification
   - Limitations and delimitations of the problem.
(2) Types of Variables.

UNIT - III

(1) Theory of Probability.
   - Population and sample
   - Probability sampling: simple random, systematic random sampling, two stages and Multistage sampling cluster sampling.
   - Non-probability sampling purposive quota and volunteer sampling snowball sampling

(2) Basic principles of research Design.
   - Purposes of research design, Fundamental applied and action, exploratory and descriptive experimental, survey and case study, ex-past facto.
• Longitudinal and cross sectional, co-relational.  

**UNIT IV**

(1) Qualitative Research Methods.

• Theory and design in qualitative research.
• Definition and types of qualitative research.
• Methods and techniques of data collection

  Group Discussions
  Interviews: Key in formats, in-depth interview
  Observation.
  Social Whapping
  Participatory rapid assessment
  Participatory learning assessment

(2) Data Gathering Instruments

- Observation, questionnaire, interview scaling methods, case study, home visits, reliability and validity of measuring instruments.

(3) Writing a research proposal.

References:-
7) Stranss, A. and carbin, J. (1990) : Basis of Qualitative research grounded theory procedures and techniques, sage publication California.
8) “संशोधन पाठ्यों” – डा.डे.जे.टेसाक गजु रात बिनौसोटी गर्भ निमाश्च बोकुः.
9) “संशोधन पाठ्यों” – डा.एप्प शाक - सी.जमनालास प्रकाशन
OBJECTIVES

1) Provide an understanding of composition of various food staff.
2) Familiarize students with changes occurring in various food staff as a result of processing and cooking.
3) Enable students to use the theoretical knowledge in various applications and food preparations.
4) Provide adequate theoretical background and understanding about sensory evaluation of food.

UNIT – I

1) Sensory evaluation of foods:

   a. Introduction to sensory analysis
   b. Types of tests
      i. Discrimination / Difference tests: - paired test, triangle test, duo-trio test, for multiple samples.
      ii. Quantitative difference tests: - Ranking Numerical, scoring test
      iii. Preference test grading charts.
      iv. Quality tests: - Grading charts, flavor, and profile method.

   c. Factors affecting accuracy of test

   d. Panel
      i. Selection of panel members.
      ii. Training of the judges
      iii. Size of panel

   e. Sampling of foods
      i. Preparation of samples for scoring
      ii. Number of samples
      iii. Environment for evolution

UNIT – II

1) Colloid chemistry:
   a. Emulsion
   b. Browning reactions.

2) Leavening agents.
UNIT – III

1) Cereals: General structure, composition, nutritive value storage.

a. Use of flour for bakery products.
b. Preparation of matt, starches (including gel formation)
c. Maize and rice processed products like puffed rice, flakes, popcorn, ready to eat mixes and self raising flours etc.

UNIT – IV

1) Pulses:
Composition, Nutritive value, milling preparation of flour, use of flour, storage of pulses.

2) Oil Seeds
Classification, composition, Nutritive value of oil seeds like Groundnut, soya bean (legume)
Sesame seed, cash walnut, Almond, Pista etc.

Reference Books:
1. Food Science – Bshrelaxmi, New Age International (p) Ltd.
2. Experimental cooking – Lawe Badie.
4. Hand Book of Food Science and Experimental.
5. Food – By M. Swaminathan
7. Food packing – Sacharew & griffin a & publication
10. Dairy Technology – s. kumar
14. Professional food and beverage service managements Brain verghese MacMillan Indian Ltd.
15. Experimental Foods laboratory manual by Margaret Me. Williams subjectpub.
16. Aahar iv)an – Dr. UmaPatel
17. Aahar iv)an – Dr. UmaPatel, अनक्षी पटेल
OBJECTIVES:
1. To develop a knowledge base in key areas of institutional food administration.
2. To provide practical field level experience in institutional food administration.
3. To impart necessary expertise to functional as a food service manager.
4. To equip individuals to start their own food service unit leading to entrepreneurship.
5. To develop critical abilities and provides and provide basic grounding in research techniques.

UNIT – I

1. Introduction to food service systems.
   - Evolution of the food services industry.
   - Characteristics of the various types of food services units.
2. Approaches to management.
   - Theories of Management.

UNIT – II

1. Management of Resources.
   A. Finance
      - Budgets.
      - Sources of Finance
      - Planning adequate cash flow
   B. Space & Equipment
      - Step in planning layouts.
      - Determining equipment.
      - Maintenance of equipment
      - Layout analysis.
   C. Material
      - Menu planning
      - Purchase
      - Storage
      - Gauntly Food production.
      - Service and modes of delivery.
   D. Staff
      - Manpower planning
      - Recruitment induction, training, Motivation and performance appraisal
   E. Time and Energy
      - Measures of utilization and conservation.
UNIT – III

1. Cost Accounting / Analysis
   a. Food cost analysis

2. Marketing and sales management
   a. Marketing strategies
   b. Sales analysis
   c. Market promotion.

UNIT – IV

1. Quality Assurance
   a. Food Quality
   b. Total Quality management

References:-

   Revised by HargerFV, Shuggart SG& Palgio Placio JUNE MacMillan Publication Company.
   New York.
   Stoughton Publication.
   hoydenBook company, New Jersey.
5) Green, E.E Darke, G.G Sweeny, F.F. (1978) Profitable Food and BeverageManagement . planning,
   operations, Hayden Book company, New Jersey.
OBJECTIVES:
1. To provide conceptual inputs regarding entrepreneurship management.
2. To sensitize and motivate the students towards entrepreneurship management.
3. To orient and impart knowledge towards identifying and implementing entrepreneurship opportunities.
4. To develop management skills for entrepreneurship management.

UNITS – I
1. Conceptual Framework
   - Concept, need and process in entrepreneurship development.
   - Role of enterprise in national and global economy.
   - Types of enterprise – merits and demerits.

UNIT – II
2. The entrepreneur
   - Entrepreneurial motivation – dynamics of meaning and motivation.
   - Entrepreneurial competency – concepts
   - Developing entrepreneurial competencies – requirements and understandings the process, interpersonal skills, creativity, assertiveness achievement, factors affecting entrepreneur’s role.

UNIT - III
3. Launching and organizing an enterprise.
   - Environment scanning – information sources, schemes of assistance, problems.
   - Enterprise selection, market, assessment, enterprise feasibility study, SWOT Analysis.
   - Resource mobilization – finance, Technology raw material, site and manpower.
   - Costing and marketing management and quality control.

UNIT – IV
4. Project Work Planning resource mobilization and implementation

5. Government policies and schemes for support in enterprise development and management.
Reference :-


OBJECTIVES:
Practical based on Food Science-I

1. Planning a sensory Evaluation.
   I. Designing Questionnaire
   II. Designing Score card
   III. Discrimination test
      a. Paired
      b. Triangle
      c. Duo-trio
2. Cereal cookery
   I. Starch – Gelatinization of starch – comparison of fluting content from wheat flour.
   III. Leavened products : (Use of any four)
      a. Fermentation – use of micro organisms (Lactic acid, Yeast)
      b. Chemical agents
      c. Egg.
      d. Steam
3. Pulse cookery
   I. Comparative study of cooking dry, soaked and sprouted pulses in various medium, water time and temperature.
   II. Cooking of soaked pulses in various metal.

4. Thickening Agents. Use of any four thickening agents in cooking from following.
   I. Gram Flour
   II. Corn Flour
   III. Custard powder
   IV. Maida

5. Binding agents (use of any four)
   I. Bread Crumb
   II. Any Flour
   III. Sago
   IV. Suji
   V. Bread
M. A. HOME SCIENCE
SEMESTER I
PAPER NO. HSC 406
Practical – Institutional Food Administration

OBJECTIVES:

1. Market Survey and analysis of processed and finished products.

2. Market survey of food service equipment
3. Planning means for quantity
   - Banquet
   - Outdoor catering
   - Packed meals
   - Restaurant
4. Standardizing recipes.
5. Cost analysis of menu in
   - Hostel mess
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<td>Advertising and Marketing OR Food Packaging</td>
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M. A. HOME SCIENCE

SEMESTER II
PAPER NO. HSC 407
THEORY
Statistics and Computer Application

OBJECTIVES:-

1. To understand the role of statistics and computer applications in research.
2. To apply Statistical techniques to research data for analyzing & interpreting data meaning fully.

CONTENTS: -

UNIT – I
1. Conceptual understanding of statistical measures, classification and tabulation of data measurement of central tendency measures of variation.
2. Frequency distribution, histogram, frequency, polygons, ogive.

UNIT – II
1. Binomial distribution

UNIT – III
1. Parametric and non-parametric tests
2. Testing of hypothesis Type I and Type II errors. Levels of significance

UNIT – VI
1. Chi-square test, goodness of bi independence of attributes 2 X 2 and r x Contingency tables.
2. Application of Students ‘t’ tests for small samples. Difference in proportion for means and difference in means.

Reference:-
3. Long; J.S. (Ed) (1988); common problems, Proper solutions avoiding errors in quantitative research; Beverly Hills; Sage publication; California.
OBJECTIVES:-

1. Provide an understanding of composition of various food stuff.
2. Familiarize students with changes occurring in various food stuff as a result of processing & cooking.
3. Enable students to use the theoretical knowledge in various applications and Food preparations
4. Provide adequate theoretical background and understanding about sensory evaluation of food

CONTENTS:

UNIT – I

1. Fruits and vegetables:
   − Composition, pigments, nutritive value, storage, spoilage, browning, reaction, preservation, techniques, garlic paste, cordials, pectin, gels.
2. Spices and Continents:
   − Definition, classification, composition.
   − Major and minor Indian spices.

UNIT – II

3. Milk and Milk product
   − Composition, processing and product of milk, types of milk & milk products.
   − Dairy products – yogurt, butter, cheese, ghee, milk powder, khoya paneer, cream and curd.

UNIT – III

4. Beverages:
   − Classification, Soft drinks and its importance in relation to nutrients, alcoholic and non-alcoholic

UNIT - IV

6. Sugar cookery:
   a. Foams of sugar – Granulated, powdered khandsari, Molasses, Maple and loaf Sugar.
   b. Process of Crystallization

Reference:-
2. Experimental cooking – lewe Badie.
3. Foods Selection and preparation, Sweedom and makeller.
5. Food – By M. Swaminathan
6. Food Packing – Sacharew & Grifin A Vi Publication.
9. Food Science (3rd Edition) Portar Norman New Delhi CBC Publisher
12. Food chemistry – litjon mayar (1960) new york reihold
13. quantity food management Principles & application subject publication.
14. Professional food and Beverage services management Brain Verghese Mac
Millan India. Ltd.
15. Experimental food Laboratory Manual by Margaret me Williams subject pub.
16. Prayogatmak Randhankala (Gujarati)-Dr. Uma Patel
17. Aahar Vignan(gujarati)-Dr. Uma Patel, Dr. Janki Patel
M.A. HOME SCIENCE
SEMESTER – II
PAPER NO. - HSC – 409
PRACTICAL - Computer Application

1- MS Office
2- MS Word
3- MS Excel
3- MS PowerPoint.
M.A. HOME SCIENCE
SEMESTER – II
PAPER NO. HSC - 410
PRACTICAL - FOOD SCIENCE – II

(A). Fruits and Vegetables :

(1). Effects of cooking on pigments in various mediums (Any Four from following) – Acid, Alkali, Distil water, sugar, salt, Aluminum vessel.

(2). Effect of cooking on fruits and browning reaction.

(B). Milk :

(1). Effect of acid, Alkali, sugar and heat on milk cookery.

(2). Preparation of Paneer and curd by various methods.

(C). Sugar Cookery :

(1). Preparation of crystalline and non – crystalline candies like –
   (i) - Fudge and Fondant
   (ii) - Chikkies and Barfies.

(2). Preparation of various consistency of sugar syrup - Make any three preparation from it.

(3). Caramalization use in cookery.
OBJECTIVES:

(1). To acquaint the students with house keeping department and its management in the hospitality industry.

(2). To enable students to manage resources in the housekeeping department to fulfill the hospitality function.

UNIT - I

(1). Types of institutions facing hospitality services.

(2). Hospitality Functions.

(i) - Role of housekeeping in hospitality industry.

(ii) - Housekeeping in relation to commercial and welfare section.

UNIT – II

(1). Management of housekeeping department.

(i) - Layout of housekeeping department.

(ii) - Planning, Organization and communication of housekeeping activities.

(iii) - Co-ordination with other department.

(iv) - Roles/Responsibilities of personal in the housekeeping department.

(2). Hostess Training.

UNIT – III

(1). Administrative Policies.

I – Personnel Management: Recruitment training, handing, Personnel Promotion evaluation, distribution of jobs, Schedules job analysis.

II - Procurement Policies, buying techniques stores, stock control.

III - Cost control, inventory management, budget process, controlling expiries.

IV - Safety, security and sanitation, safety firefighting, first aid safety in equipment use, pest control sanitation standardly.

V - Uniforms, types selection, distribution and control.

(2). Banquet Management.

UNIT – IV

(1). Energy and water management

Power requirements, flushing system, water control taps, wastewater circulation.

(2). Communication system, public address system, intercom system, music and television.

(3). Maintenance, Repairs and redaction programs.
References :

(2). Dix, C (1979) Accommodation operations : MacDonald & Evans.
(10). Ursula Jones and Newtons : Hospitality and catering.
OBJECTIVES: -
The enable students:
To get an insight related to components of project planning.
1) To provide an overview of the significance of general approach and methods and techniques and –
2) To impart skills in project planning.

UNIT – I
Basic concepts of project planning.
- Basic concepts : Need problem, project feasibility, planning, project formulation, forecasting, appraisal, PRA importance and objectives of project formulation, project development cycle and its stages, project classification.

UNIT – II
Project Identification –
Identification of project opportunities, government policy, regulations, incentives and restrictions methods and techniques of project identification, prioritization of projects with peoples participation, prefeasibility, study.

UNIT – III
Project Formulation :

UNIT – IV
- Project Appraisal –
Comprehensive appraisal of the key components of the project – project appraisal techniques – decision matric, system analysis – urgency and risk analysis break even- Point analysis, pay back period analysis, rate of return. MPV Profitability and IPR analysis, risk analysis and social cost benefit analysis.
- Project Format : Common Format analysis :
Proposal – basic and supportive information required for a project, rules governing the preparation of project, proposal writing up a project proposal.
References:
OBJECTIVES : -

1). To become aware of different market organizations in our economy.
2). To understand the different marketing functions and the distribution system in our economy.
3). To familiarize with the marketing strategies and market research.
4). To understand the role of advertising in sales promotion.

UNIT – I

1) Market Economy

- Markets, marketing, marketing functions.
- Marketing environment, marketing research, market segmentation.

UNIT - II

1) Product Development & Forecasting

- Developing, testing and launching new products.
- Idea generation, screening and business analysis.
- Understanding market demand and consumer adoption process.
- Labeling and packing.
- Stages in product life cycles.

2) Pricing practices and consumer interest pricing.

UNIT – III

1) Advertising and sales promotion.

- Advertising objectives, functions, benefits.
- Advertising budgets and costs of sales promotions.
- Types of Advertising.
- Evaluation of advertising effectiveness.

UNIT – IV

1) Personal selling and sales management.

- Characteristics and importance.
- Creative selling process.
- Organizing sales force, training personnel
- Motivation, evaluation and control of sales force.
2) Service Marketing

- Marketing strategies.
- Maintaining quality in services.

References:

OBJECTIVES:--
This course is designed to enable students to:
• Gain knowledge about various packaging materials and importance of packaging.
• Be familiar with testing and evaluation of packing media
• Be familiar with packaging laws and regulations
• Be able to select appropriate packaging material for preventing environment degradation.

UNIT – I
1. Packaging:
   • Concepts, Definition, classification, Packaging – Development.
2. Packaging of Food:
   • Fresh and processed
   • General characteristics & food preservation.

UNIT – II
1. Primary Packaging media:
   • Properties and application,
     Proper boards, metals, plastics, wood & glass Labels, cops adhesives
2. Testing and Evaluation of packing media
   • Retail packs [including shelf life evaluation] and transport packages.

UNIT – III
1. Packaging systems and methods for food products – vacuum packaging gas flush packaging, bag in box etc.
2. Food Products General classification and packing types, varieties trends.

UNIT – VI
1. Storage, handling and distribution of packages (foods including palletisation & containerization)
2. Food marketing and role of packaging.
3. Packaging – Laws & Regulation – FDA. PFA, Packaging commodity Rules, Weight & measures act etc.

Reference:-
1. Sacharow & griffin, food Packing – AVI a publication.
7. Robertson G.L. Food packaging new york marcell dekker Inc.
### Course Syllabus Formate CBCS

**IMPLIMENTED FROM – JUNE 2018**

**SEMESTER – III**

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<td>Child and Human Rights</td>
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<td>Problems in Human Nutrition</td>
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Objective: -

This course will enable the students to

1. Augment the biochemistry knowledge acquired at the undergraduate level.
2. Understand the mechanisms adopted by the human body for regulation of metabolic pathway.
3. Get an insight into the interrelationship between various metabolic pathways.
4. Become proliferation for specialization in nutrition.

UNIT – I

1. Energy Metabolism
   a. Determination of energy value of Food: Bomb calorie meter and oxy calorimeter.
   b. Basal metabolic rate: Measurement and factors affecting basal metabolic rate.
   c. Measurement of energy requirement of an individual with reference to man and women.

UNIT – II

1. Carbohydrates.
   a) Chemistry and classification.
   b) Digestion and absorption.
   c) Metabolism: Glycolysis, TCA Cycle, gluconeogenesis, glycogen synthesis.
   d) Regulation of carbohydrates metabolisms, General mechanical, Hormonal regulation
      Blood glucoses Homeostasis.

UNIT – III

2. Proteins
   a) Chemistry and classifications
   b) Amino acids – structure and classification.
   c) Digestion and absorption.
   d) Evaluation of protein quality.
UNIT – IV

1. Lipids
   a) Composition and classification.
   c) Digestion and absorption.
   d) Types of fatty acids, nutritional significance.
   e) Requirements of Fat.

Reference Books-

2. Natalle Bray : Dress Fitting Published by Blackwell Science Ltd.,
OBJECTIVES:
1. To impart an in depth knowledge of style reading pattern making and garment construction techniques.
2. To develop and understand the principles of pattern making through flat pattern and draping.

UNIT – I
1. Detailed study of industrial machines and equipment used for –
   - Cutting
   - Sewing
   - Finishing
   - Embellishment

UNIT – II
1. Study the inter relationship of needs, Thread stitch, Length and Fabric
2. Methods of Pattern making.
   - Drafting
   - Flat Pattern
   - Draping

UNIT – III
1. Developing Paper Pattern
   - Understanding the commercial paper pattern.
   - Layouts on different fabrics, widths and Types.
2. Readymade garments.

UNIT – IV
1. Garments and Garment Details:
   a. Necklines and collars
   b. Sleeve details
   c. Skirts and Pants
   d. Blouses, coats and Jackets
   e. Frills, Fringes and gathers, cowls & cascades
   f. Hemlines and insertions
   g. Lacing, macramés and patch work
   h. Pleats, quilling and ties
   i. Shirring, Smoking and Zips
   j. Yokes and underskirts
   k. Tassels and tucks
2. Basic Rendering Techniques:
   a. Colour matching using different mediums.
   b. Patterns and textures

References:
1. Armstrong Pattern making for Fashion Desing.
2. Gioello and Berke: Figure Type and size Rangge, Fairchild Publications, New York.
6. Harold Carr and Barbara Lthan: The technology of clothing manufacture, Oxford BSP
    Professional Book London.
M.A. HOME SCIENCE
SEMESTER III
Paper No. HSC – 503
Practical-Advance Nutrition & Apparel Construction

Practical based on 501- Advanced Nutrition – 1
This course will enable the students and be familiar with qualitative test and quantitative determination.

1. Reaction of monosaccharide and their identification
2. Reaction of disaccharides and their identification
3. Reaction of Polysaccharides and their identification
4. Estimation of lactose in milk
5. Estimation of reducing sugar in food
6. Bleeding time and clotting time
7. To find out organic constituents of Milk.
8. To find out organic constituents of egg.
9. To find out organic constituents of Wheat flour.

Practical based on 502- Apparel Construction

1. Designing through flat pattern- Dart Manipulation
2. Development of variation in sleeves
   a. Sleeves and bodice combination
3. Development of variation in collars
   a. Roll over collar
   b. Collar with bodice (Shaw)
4. Necklines and Facings
   a. Scooped Necklines
   b. Built-up Necklines
   c. Cowl Necklines
5. Plackets
   a. Center button closing
   b. Asymmetrical closing
   c. Double breasted
7. Designing through draping
   a. Basic draping Principles and Techniques
   b. Developing a Pattern
8. Fashion Sketching
9. Term Garments – 2
Objectives:
− To develop awareness and perspective of Human Rights as a professional in the field of Human Development
− To develop sensitivity to Human Rights with specific reference to children’s rights
− To gain knowledge about charter on Human and Children’s Rights
− To work with women and children to create awareness about their rights and to guide them to access their rights

CONTENTS:

UNIT I
Definition and Evolution of Rights
− Human rights
− Child rights
− Woman’s rights
− Charter
− Convention
− Policy

UNIT II
Status of Indian Children and their Rights
− Gender disparities (infanticide, feticide, girl child)
− Children in difficult circumstances (children of prostitutes, child prostitutes, child labor, street children, refugee children and child victims of war.)
− Children with special needs.

UNIT III
Status of Women and their Rights
− Status of women in India
− Women and Human Rights
− Forms of violation of women’s rights
  Violence against women in home, work, places and society Sexual harassment, rape
  Crime against women
  Political discrimination
  Health and Nutrition based deprivations
UNIT IV

Human Rights
- Moral Rights
- Legal Rights
- Civil and Political Rights

Advocacy for Human Rights

References:
4. D'Souza, C. and Menon, J. Understanding Human Rights (Series 1-4) Bombay: Research and Documentation Centre, St. Pius College.
25. Manav Adhikar and Sanyukta Rastra Sangh, Satis Chaturvedi
OBJECTIVES:
The course is aimed at providing an understanding of:
- Nutritional problems/nutrition-related diseases prevalent among the affluent and the less privileged groups, reference to their incidence, etiology and public health significance
- Biochemical and clinical manifestations, preventive and therapeutic measures of the same

CONTENTS:

UNIT – I
1. Historical background prevalence etiology biochemical and clinical manifestations, preventive and therapeutic measures for the following:
   - PEM
   - Nutritional anemia

UNIT - II
- Iodine
- Rickets, osteomalacia and osteoporosis
- Fluorosis

UNIT - III
2. Historical background prevalence etiology biochemical and clinical manifestations, preventive and therapeutic measures for the following:
   - Obesity

UNIT – IV
3. Historical background prevalence etiology biochemical and clinical manifestations, preventive and therapeutic measures for the following:
   - Diabetes

References:
Ministry of Rural Development
health care, WHO
Concerns, Dept. of Pediatrics, Maulana Azad Medical College, New Delhi
Disease. 9th Edition, Williams & Wilkins
Edition, W.B. Saunders Ltd.
and IBH Publishing Co. Pvt. Ltd.
OBJECTIVES:
− To impart knowledge and understanding of various communication systems.
− To provide a sound knowledge base for the relevance and applicability of the various media used in human communication and their complementary role towards each other.
− To enhance the versatility of the students in the selection and use of media in different socio-cultural environments
− To provide basic knowledge of concept of advertising and use of media in advertising.
− To impart skill in preparation of various Computer Aided Media messages.

CONTENTS:

UNIT I
Communication Systems
− Types of communication systems – concept, functions and significance. Interpersonal, organizational, public and mass communication.
− Elements, characteristics and scope of mass communication.

UNIT II
− Mass communication – models and theories;
− Visual communication – elements of visual design – colour, line, form, texture and space;
− Principles of visual design – Rhythm. Harmony, Proportion, balance and emphasis.
− Visual composition and editing.

UNIT III
Media Systems: Trends & Techniques
− Concept, scope and relevance of media in society.
− Functions, reach and influence of media.
− Media scene in India, issues in reaching out to target groups.
− Contemporary issues in media – women and media, human rights and media, consumerism and media.
− Historical background; nature characteristics, advantages and limitations and future prospects of media.
− Traditional media; role in enhancing cultural heritage, coexistence with modern media systems and applicability in education and entertainment – puppetry, folk songs, folk theatre, fairs.
− Print media; books, newspapers, magazines leaflets and pamphlets.
− Electronic media-radio, television, video, computer based technologies.
− Outdoor Media: exhibition, fairs and kiosks.
− Media Planning and Scheduling, selection of media on the basis of suitability, reach, impact frequency and cost
− Introduction to ethics in mass media, freedom of speech, expression and social responsibility
− Political and Government controls on the media
UNIT IV

Advertising
- Definition, concept and role of advertising in modern marketing system and national economy.
- Inter-relation of advertising and mass media systems.
- Types of advertisements – commercial, non-commercial, primary demand, selective demand, classified and display advertising, comparative and co-operative advertising.
- Techniques of preparation of effective advertisements for various media.
- Ethics in advertising.

Reference:
OBJECTIVES:
This course aims to enable students to:
1. Be acquainted with status of women in Family and Society
2. Understand how various factors influence the health and nutritional status of women
3. Plan and undertake various activities to improve the status of women
4. Understand how health of women influence family, community and national development

CONTENTS:

UNIT I
1. Role of women in National Development
2. Women in family and community
   a. Demographic changes, menarche, marriage, fertility, morbidity, mortality life expectancy, sex ratio, aging and widowhood, female-headed families.

UNIT II
1. Women and Work
   a) Environmental stress, production activities, nutrition, health and gender, living conditions, occupational health, health facilities,
2. Women’s nutritional requirements and food needs.

UNIT III
1. Women and Society
   a. Women’s role, their resources and contribution to family and community and effect on nutritional status
   b. Effect of urbanization on women
   c. Impact of economic policies, industrialization and globalization on women
2. Women and Health
   a. Health facilities
   b. Disease patterns and reproductive health
   c. Gender and health
   d. Health seeking behavior
   e. Women- pregnancy and lactation
   f. Safe motherhood
   g. Care of at-risk mothers
   h. Family planning
   i. Women and aging – special concerns in developed and developing societies:
      Menopause, osteoporosis, chronic degenerative diseases, neurological problems
UNIT IV

1. Women and Nutrition
   1. Situation of women in global, national and local context improving the nutritional and health
   2. Policies and Legislations
      a. CEDAW (Convention on Elimination of all forms of Discrimination Against Women), women’s Right to Life and Health (WRLH)

3. Empowerment of Women
   a. Role of Education and various national schemes.

References:
1. ACC/SCN Policy Discussion Papers
3. UNICEF (1994): The urban poor and household food security, UNICEF
4. IDRC (1993): Gender, Health and Sustainable Development
5. NGO Committee on UNICEF (1997): Women and Children in urban poverty – what way out?
6. Census Reports, Government of India
7. NFHS Reports
8. UNICEF – State of the world’s children
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<thead>
<tr>
<th>Course No</th>
<th>Name of the Subject</th>
<th>Teaching hours per week</th>
<th>Credits</th>
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<td>HSC 508</td>
<td>Advance Apparel Construction</td>
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<td>Practical -Advance Nutrition &amp; Apparal Construction</td>
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<td>Early Childhood care &amp; Education</td>
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<td>OR</td>
<td>E B Food Processing &amp; Technology</td>
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<td>HSC 511</td>
<td>Dissertation / Extension &amp; Communication</td>
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<td>HSC 512</td>
<td>Seminar/Project</td>
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**Totals** 15 3 26 24
OBJECTIVES:
This course will enable the students to:
1. Augment the biochemistry knowledge acquired at the undergraduate level
2. Understand the mechanisms adopted by the human body for regulation of metabolic pathway
3. Get an insight in to interrelationships between various metabolic pathways
4. Become proliferation for specialization in nutrition

CONTENTS:

UNIT I
WATER
1. Water and Electrolyte Balance
   - Chemistry, distribution and composition of body fluids.
2. Mineral Balance
   - Sodium, Potassium and chloride: absorption, intake and output regulations
   - Other macro minerals – calcium, phosphorus and magnesium.
   Absorption, metabolism and regulation

UNIT II
VITAMINS-1
1. vitamins Structure, absorption, transport and metabolism biochemical functions and interaction with other nutrients
   - Fat soluble – A,D,E and K

UNIT III
VITAMINS-2
1. vitamins Structure, absorption, transport and metabolism biochemical functions and interaction with other nutrients
   - Water soluble vitamins – B complex and Ascorbic acid

UNIT IV
1. Poisonous elements naturally occurs in Food.
   - Toxic Amino Acid
   - Neurolytharisum
   - Toxic alkaloids
   - Synojenic glycosides
   - Trypsin Inhibitor
   - Micro toxic
   - Flatulence factors
   - Lytharisum
2. Poisonous effect developed in Food by chemicals.
   - Toxic metals
   - Pesticides
   - Food processing
   - Packaging material
   - Environmental

References:
1. Food and Nutritons by M.S. Swaminathan, Vol. I & II
2. Normal and Therapeutic Nutrition by Robinson
4. Potter, N. and Hotch Kiss, Food Sciences – CBS Publisher, New Delhi.
OBJECTIVES:
- To help develop skills in pattern making and construction
- To create awareness of quality assurance norms and evaluating of quality in apparel

CONTENTS:

UNIT I
1. Fitting – factors affecting good fit, common problems encountered and remedies for fitting defects (upper and lower garments)
2. Clothing for people with special needs
   a. Maternity and lactation period
   b. Old age
   c. Physically challenged

UNIT II
1. Evaluating the quality of apparel
   a. Identification of the components of apparel
   b. Fiber content, shaping devices, underlying fabrics, pockets, necklines, hem treatments, decorative details and alteration potential
   c. Standards for evaluating the various components

UNIT III
1. Elements used in creating design
   a. Concept and scope of fashion, design, classification of fashion
2. Composition
   a. With one element
   b. With more than one element

UNIT IV
1. Colour
   Its sensitivity and composition in dress
2. Harmony
   In form of space coverage to design of dress
3. Fashion Forecasting

References:
2. Natalle Bray : Dress Fitting Published by Blackwell Science Ltd.,
1) ADVANCE NUTRITION – II
1. Estimation of ascorbic and content of foods by titrimetric method.
2. Estimation of Vitamin – A
4. Alkali and acid. – Preparation of dilute solution of common acid and alkali and determining their exact normality.
5. Estimation of Vitamin-A. (Palak, Coriander)
6. Estimation of RBC and WBC from blood.
7. Estimation of urea and uric acid and creatinine urine.
8. To prepare chart for normal content of blood.
9. To prepare chart for normal content of urine.
10. Estimation of Vitamin-C.

2) ADVANCED APPAREL CONSTRUCTION

1. Development of slopes for skirt variations.
   - Low and high waist
   - A line, flared, circular, pleated, yoked with goaded / peplum
2. Pockets.
   - Slashed pockets – welf, bound flaps
   - Inseam pockets – closed and open
3. Placket
   - Fly front opening
   - Zipper in seam without seam
4. Designing, drafting and construction of skirt
5. Fashion sketching
6. Term garment.
M.A. HOME SCIENCE
SEMESTER IV
PAPER NO. 510 EA
THEORY
EARLY CHILDHOOD CARE & EDUCATION

OBJECTIVE:
1. To gain knowledge and insight regarding Principles of early childhood care and education.
2. To develop the skills techniques to plan activities in ECCE centers of different types to conduct activities in early childhood care and education and to work effectively with parents and community.

CONTENTS

UNIT - I
1. Principles of Early childhood care and education.
   a. Importance need and scope of ECCE
   b. Objectives of ECCE
2. Types of Preschools/Programme:
   Play centers, day care, Montessori, kindergarten, balwadi, anganwadi etc.
3. Concepts of non – formal, formal and play way methods.

UNIT - II
1. Historical Trend (Overview)
   a. Contribution of the following thinkers to the development of ECCE ( their principles, application and limitation) in the content of ECCE.
   c. ECCE in India : Pre independence period, Post independence Kothari commission, contribution of five year plans to ECCE – Yashpal committee, Maharashtra preschool center Act.

UNIT - III
1. Organization of Pre School Centers.
   a. Concept of organization and administration of early childhood centers.
   b. Administrative set up and functions of personnel working at different levels.
2. Building and equipment location and arrangement of rooms: playground selection of different types of outdoors and indoor equipment.
3. Staff / personnel service conditions and roles: role and responsibilities, essential qualities of a care giver/teacher their personal records and report.
UNIT - IV

1. Activities For ACCE
   a. Language Arts : Goal and Language, types of listening and activities to promote listening various activities – (Songs, Object talk, picture talk, Free conversation, books, games, riddles jokes stories and teacher’s role.)
   b. Art and Craft activities (creative activities of expression)

Types of activities – Chalk, crayon, paints, paper work and best out of waste.
Role of teacher in planning the activity, Motivating children, Fostering, appreciation of art and craft activities.
   c. Music : Songs, Objective of Music education establishing, goals, setting the stage and role of the teacher. Three aspects of music, making listening and singing.
   d. Mathematics : Goals of mathematics, learning developmental concepts at different stage : Principles of teaching mathematics.
   e. Science : Role of teacher in some important science experiences.

References :
OBJECTIVES:
This course is designed for students to:
- Impact systematic knowledge of basic and applied aspects of food processing & technology.
- Provide the necessary knowledge of basic principles and procedures in the production of important food products.

UNIT – I
1. Introduction: main corps grown in the country – importance and storage.
2. Physical principles in food processing –
   a. Refrigeration – Refrigeration, cold storage, cool storage with air circulation, humidity control and gas modification.
   b. Freezing – Changes during freezing, choice for final temperature for frozen foods, freezing methods.
   c. Dehydration – methods of dehydration.

UNIT – II
1. Cereals and Pulses :
   a. Corn wet milling, corn starch products.
   b. Storage and quality of cereal gains.
   c. Rice processing, para boiled rice, Rice based instant foods.
   d. Pulses – processing elimination of toxic factors, quick – cooking dals, fermentation and germination.

UNIT – III
1. Fruits
   - Structure, composition, physiological and biochemical changes during ripening, handling and storage.
2). Vegetables
   - Harvesting, Post Harvest processing, Caning Freezing, Pickles and chutneys.
3). Spices
   - Processing and extraction of essential oils and colours, storage and preservation.

UNIT – IV
1. Fermentation Technology :
   a. Fermentation technology, Yeast, Milk products, fermented vegetables, Beer, Vinegar
   b. Enrichment and fortification technology, High protein food technology.

2. Additives and Preservatives :
   a. Definition of food additives, acids, bases, sweeteners, stabilize and thickeners.
Reference: -
23. Ting, S.V. and Rouself, R.L. Citrus fruits and their products; Analysis and Technology.
27. Srephen, A.M. Food Polysaeharides and their application, Marcel Dekket INC, New York.
M.A. SEMESTER-IV  
PAPER HSC-511  
DISSERTATION

Subject for Paper -511 Dissertation

Should be selected from any related topic of syllabus.

OR

PAPER – 511 : EXTENSION & COMMUNICATION  
(OPTIONAL PAPER TO DISSERTATION)

Objectives:-
1 To create answer about various aspects of extension education.
2 To develop understanding various aspects of communication in extension education.
3 To create awareness about approaches for classification of extension methods.
4 To develop understanding regarding advantages, technique for various extension Methods.

UNIT-I  
Communication & Extension Education.

1 Understanding extension education (Revision from sem-6)
2 Concept of communication.
3 Elements of communication

UNIT-II  
Process of Communication

1 Communication Process
2 Role of communication planner
3 Major problems of communicating during extension work.
UNIT-III
Programme planning and roll of professionals in extension education

1 Programme planning-
   Concept of Programme planning
   Developing a plan of work
   Principles of planning the programme

2 Role of Professionals in extension work
   Significance of professional in extension work.
   Functions of community worker.

3 Characteristics of an ideal community worker

UNIT- IV
Types of Education & their program

1 Types of education
   -Community Development program
   -Component & Philosophy of community development

Reference books-
1 Dhama O.P. and Bhatnagar, Education and Communication for Development, Oxford co.,2002
2 Chandra Arvinda, Shah Anupama And Joshi Uma, Fundamentals of Teaching Home science, Publishers 1989
3 Chaubeg B.K., A handbook of extension education.
Subject for Paper -512 Project /Seminar

Should be selected from any related topic of syllabus.