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>
<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></td>
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<td>Lectures</td>
<td>Others</td>
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<tr>
<td>HSC 401</td>
<td>Research, Methods</td>
<td>3</td>
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<td>HSC 402</td>
<td>Food Science -1</td>
<td>3</td>
<td>1</td>
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<td>HSC 403</td>
<td>Institutional Food Administration</td>
<td>3</td>
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<td>HSC 404</td>
<td>Entrepreneurship Management -1</td>
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<td>HSC 405</td>
<td>Practical -Food Science- 1</td>
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<td>HSC 406</td>
<td>Practical -Institutional Food</td>
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<td>Administration</td>
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<td><strong>Totals</strong></td>
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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 Wrapping
  - 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:
8) “Sanshodhan Padhatio”, Dr. K.G. Desai, Gujarat University Grantn Nirman Board(Gujarati)
9) “Sanshodhan Padhatio” Dipak Shah, C.Jamanadas Prakashan(Gujarati)
OBJECTIVES

1) Provide an understanding of the 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 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 test: 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 malt, 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 Ground nut, 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 subject pub.
16. “Prayogatmak Randhankala”,Dr. Umaben Patel (Gujarati)પયોગાત્મક રંધનકાળા – ડ્ર. ઉમાબેન પટેલ
17. “Aahar Vignan”,Dr. Umaben Patel,Dr. Janki Patel(Gujarati)આહર વિજ્ઞાન – ડ્ર. ઉમાબેન, જાનકી પટેલ
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 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:-

M. A. HOME SCIENCE

SEMESTER- I

THEORY
Paper No. HSC 404
ENTERPRENEURSHIP MANAGEMENT

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.

UNIT – 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 row 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
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