

**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  
IMPLIMENTED FROM –  
JUNE 2018  
SEMESTER – I**

Course No.	Name of the Subject	Teaching hours per week			Credits
		Lectures	Others	Total	
HSC 401	Research, Methods	3	1	4	4
HSC 402	Food Science -1	3	1	4	4
HSC 403	Institutional Food Administration	3	1	4	4
HSC 404	Entrepreneurship Management -1	3	1	4	4
HSC 405	Practical -Food Science- 1	-	-	6	4
HSC 406	Practical -Institutional Food Administration	-	-	6	4
	<b>Totals</b>	12	4	28	24

**M. A. HOME SCIENCE  
SEMESTER I  
PAPER NO. HSC 401  
RESERCH 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 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:-

- 1) Bandarkar, P.L and Wilkinson T.S (2000): Methodology and Techniques of social Research, Himalaya publishing home, Mumbai.
- 2) Bhatnagar, G.L (1990) Research Methods and measurements in behavioural and social sciences, agri. Cole publishing academy : NEW Delhi.
- 3) Dooley, D (1995) : strategies for interpreting qualitative data; sage publications, California.
- 4) Gay. L.R (1981, 2<sup>nd</sup> Edi. ) : Educational Research, Charles, E. Merrill, Colurbus, Ohio.
- 5) Hong, J.S. (Ed) (1988) : common Problems proper solutions : Avoiding Errors in Qualitative research, Beverly Hills, Sage publications.
- 6) Mukherjee, R. (1989) : The quality of life valuation in social research, sage publication, New Delhi.
- 7) Stranss, A. and carbin, J. (1990) : Basis of Qualitative research grounded theory procedures and techniques, sage publication California.
- 8) “Sanshodhan Padhatio”, Dr. K.G.Desai, Gujarat University Granth Nirman Board(Gujarati)
- 9) “ Sanshodhan Padhatio” Dipak Shah, C.Jamanadas Prakashan(Gujarati)

**M. A. HOME SCIENCE  
SEMESTER I  
PAPER NO. HSC 402  
THEORY  
FOOD SCIENCE – I**

**OBJECTIVES**

- 1) Provide on understanding of composition of various food staff.
- 2) Familiarize students with changes occurring in various food staff as 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 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 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.
  - d. Batter and Dough – General methods for mixing batter and dough structure.

## 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. Exprimental cooking – Lawe Badie.
3. Foods selection and preparation, Sweedom and Makeller.
4. Hand Book of Food Science and Experimental.
5. Food – By M. Swaminathan
6. Food Science (2<sup>nd</sup> edition) charles. H. John wiley & sons. New york.
7. Food packing – sacharew & griffin a & publication
8. Food Packaging – Robert son. G.I. New yourk, Marsell Dekker, Inc.
9. Food science (3<sup>rd</sup> Edition) portar Norman New Delhi, CBS Publishers.
10. Dairy Technology – s. kumar
11. Experimental cookery – belle leave (1853) new yourk john wiley & sons.Inc.
12. Food chemistry – Liljon Mayar (1960) New york reinhold.
13. Quantity food management : principales & application – subject publication.
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)પર્યોગાત્મક રાધંણ – ડૉ. ઉમાબેન પટેલ
17. “Aahar Vignan”,Dr. Umaben Patel,Dr. Janki Patel(Gujarati)Aahar iv)an– ડૉ. ઉમાબેન, જાનકી પટેલ
18. Home scale preparation of soaked & sprovted Bengal Gram . Dr. Uma Patel.

**M. A. HOME SCIENCE**  
**SEMESTER I**  
**Paper No. HSC 403**  
**THEORY**  
**INSTITUTIONAL FOOD ADMINISTRATION**

**OBJECTIVES:**

1. To developed 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 individual 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:-

- 1) West, B. Bessie & Wood, Levelle (1998) Food Service in Institutions 6<sup>th</sup> edition.  
Revised by Harger FV, Shuggart SG & Palgne Placio JUNE MacMillan Publication Company.  
New York.
- 2) Sethi Mohini (1993) Catering management An Intefrated approach 2<sup>nd</sup>Edition Wiley Publication.
- 3) Kotas Richard & Jayawardardene, C. (1994): Profitable Food and Beverage management, hodder & Stoughton Publication.
- 4) Brodner, J. Maschal, H.T, Carlon, H.M (1982): Profitable Food and Beverage operation 4<sup>th</sup> edition, hoydenBook company, New Jersey.
- 5) Green, E.E Darke, G.G Sweeny, F.F. (1978) Profitable Food and Beverage Management . planning, operations, Hayden Book company, New Jersey.
- 6) Knootz, H.O. Donnel C.(1968) : Principles of management McGraw Hill book Company.

# **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 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 :-

- 1) Meredith, G.G et al (1982) : Practice of Entrepreneurship, ILO Geneva.
- 2) Patel V.C. (1987) : woman Entrepreneurship – Developing, New Entrepreneurs Ahmedabad EDII
- 3) Akhuri, M.M.P. (1990) Entrepreneurship for women in india, NIESBUS, New Delhi
- 4) Hisrich, R.D. and perers, M.P. (1995) : Entrepreneurship starting, developing and managing a new enterprise.
- 5) Hisrich, R.D. ad Brush C.G. (1986) : The women entrepreneurs, D.C.Health & Co. Toranto.

**M. A. HOME SCIENCE**  
**SEMESTER –I**  
**Paper No. HSC 405**  
**Practical -Food Science-I**

**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.
  - II. Malt –preparation of malt and use of it in cookery – a comparative study.
  - 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