M.Sc. HOME SCIENCE
Syllabus 2016
General Home Science

The specialists in Home science play a vital role in promoting the quality of life of individuals and communities, which contributes significantly to the economic and overall development of the nation. This is achieved through a blend of academics, research training and extension as well as industrial applications. The post graduate programme in this discipline has been designed to provide the students with intensive and extensive theoretical and experiential learning. The programme allows flexibility in the choice of thrust areas, which students can select, based on their career goals. It is envisaged that the current scenario at the regional and national level require trained professionals in areas such Clinical and Therapeutic Nutrition, Extension Management, Apparel Design and Construction, Child and Human Rights, Nutrition for Health and Fitness, Fashion Design.

Aim of the Course

The curriculum integrating several elective courses, besides the core, has been formulated to provide professionally competent manpower for
a. Academic and research activities
b. Hospitals, food service institutions and industries
c. Managerial roles in agencies and institutions both Government and NGO sector.
d. Planning, monitoring and evaluation of nutrition and health programmes
e. Training and IEC activities of regional and national programmes
f. Ensuring food safety and quality for consumers
g. Entrepreneurial ventures
h. Advocacy and consultancy

Eligibility for Admission

The candidates should have completed General Home Science/CD/CT/EDEX/FN/ Home Management at B.Sc. level with a minimum percentage of marks decided by the University time to time. Candidate having B.Sc. with Foods& Nutrition will not entitle to get admission.

Note: It is a full time degree course and therefore cannot run part time or as external. The contact hour is minimum five hours including practical per week should be given to the student if it is run by the P. G. Department or any other centre. A total of 96 credits have to be taken by the students to complete the programme. If the number of credits exceeds 96, it permissible, but the calculation of the grade point average will be done on the basis of 96 credits only.

DURATION OF THE COURSE

Two years Courses: The duration of the course is for two academic years consisting of four semesters.

EXAMINATIONS

There shall be four semester examinations: first semester examinations at the middle of the first academic year and the second semester examination at the end of the first academic year. Similarly, the third and fourth semester examinations shall be held at the middle and the end of
the second academic year, respectively. The courses are divided into two parts among one is internal consists of 30 marks for core, skill oriented and multidisciplinary courses and 15 marks for elective courses and external consists of 70 marks for core, skill oriented and multidisciplinary courses and 35 marks for elective courses. Internal marks are further divided into three parts among one is MCQ test of 10 marks for CC, MD and SO while 5 marks for elective which is conducted during middle and end of each semester and average of two is consider as a final score. 10 mark of assignment for CC, MD and SO while 5 marks for elective. 10 mark of seminar for CC, MD and SO while 5 marks for elective. Course contain practical works is exempted from seminar.

PATTERN OF QUESTION PAPER: For theory
For 4 credit course, question paper will be of 2.5 hours duration.
Question paper will contain total six questions.
Question No-1 or Question No. 1 will be compulsory and objective type.
Students will have to attempt any three questions from the rest of the questions.
All Questions will carry equal grades.

For 2 credit course, question paper will be of 1.5 hours duration.
Question paper will contain total four questions.
Question No-1 or Question No. 1 will be compulsory and objective type.
Students will have to attempt any two questions from the rest of the questions.
All Questions will carry equal grades.

For practical
For practical examination, a skeleton will be designed and given to examiner every year. The duration of examination is five hours. Passing standard is 40 %.
## Detail Syllabus of M.Sc. General Home Science Programme

### Implementation from June 2016

#### Semester-1: General Home Science

<table>
<thead>
<tr>
<th>Course Code</th>
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Total: 24 30 135 465 600

**CC**=Course Category, **CCr**= Course Credit, **WH**= Working Hours, **IM**=Internal Marks, **EM**=External Marks, **TM**=Total Marks, Course revision year=16, Faculty code=08, Subject code,= 01 for Foods & Nutrition, 02 for General Home Science and 12 for common for both, Level=02 (PG), Sem=01-04, Paper no= 01-05, Options 00 for Core, Multidisciplinary (MD), and Skill oriented (SO), for Elective =01-05 (EL) (Interpretation of code 16081202010100 Here 16 means 2016, 08 Home science faculty, 12 means this paper is common for foods & nutrition and general home science, 02 means PG level, 01 Semester I, again 01 is paper no and last 00 is for Multidisciplinary course.)
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Semester-III: General Home Science

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Total: 24 30 135 465 600

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### List of Elective Subjects in M. Sc. General Home Science Programme

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SEMESTER – I
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Course Title: RESEARCH METHODS

Objectives:
- To understand the significance of statistics and research methodology in Home Science research.
- To understand the types, tools and methods of research and develop the ability to construct data gathering instruments appropriate to the research design.
- To understand and apply the appropriate statistical techniques for the measurement scale and design.

Objectives:
- To understand the significance of statistics and research methodology in Home Science research.
- To understand the types, tools and methods of research and develop the ability to construct data gathering instruments appropriate to the research design.
- To understand an
- To apply the appropriate statistical technique for the measurement scale and design.

Unit I: Research- Meaning, purpose and approaches
- Exploration, Description, Explanation
- Scientific method and research
- Research Designs –Experimental and Observational
- Quantitative and Qualitative approaches
- Conceptualization and Measurement Variables, concepts and measurement
- Levels of measurement
- Units of analysis

Unit II: Sampling & Tools
- Role of sampling in research
- Types of sampling
- Research Tools and Techniques Validity and reliability
- Interviewing and observational methods

Unit III: The Research Process
- Defining the problem, research questions, objectives, hypotheses
- Review of related literature and originality in writing
- Planning the research
- Subjects context and ethics
- Methodology and tools
- Citation formats: in medical sciences, social sciences

Unit III:

Unit IV: Types of Research Tools (Qualitative and Quantitative)
- Quantitative research tools
- Qualitative research tools
- Focus Group Discussion
- Case studies
- Observations-Direct, Spot observations
- Body mapping
- Pile sorting
- Free listing
- Narrations
- In depth interview
- Drawing as dialogue

Unit V: Representation of Data

- Graphical and Diagrammatic Presentation of Data (Bar diagrams, Pie-diagram, Histogram, Frequency Polygon, Smoothed frequency curve and Ogives)
- Tabulation and Classification
- Frequency Distribution

Unit V I: Ethics and Politics of Research

- Identify, define, and analyze ethical issues in the context of human subject research.
- Reasons for conducting ethical review of research, theories and concepts related to ethical decision-making including consequentialism, deontology, respect, dignity, discourse ethics, communitarianism, liberalism and the four principles approach.
- Ethical importance of consent, privacy and confidentiality in research
- Issues of academic fraud and plagiarism, conflicts of interest, authorship and publication

RECOMMENDED READINGS

• Bhattacharya DK (2004). Research Methodology. Published by Anurag Jain for excel books, New Delhi, India
• Del, Sultan Chand and Sons.
• Design, Prentice Hale Inc. N.J.
• God V. Cainer (1972) : Essentials of Educations Research Methodology and
• Good C.N. (1963) : Introduction to Educational research, New York, Applatan
• Keennetb King. (1978) : Final report Literacy Research in developing countries -
• Ltd., Ramnagar, Delhi.
• Patton Q.M. (1990) : Qualitative evaluation and Research methods, sage Pub.,
• Ratnapala N. (1993) : New Horizons in Research methodology, Sri Lanka,
• Rolvert horndike (1977) : Measurement & Evaluation in Psychology & Education.4th ed. John Willy & Sons
• Sarvodaya Research Institute.
• Wandt Edwin (1968) : A cross section of educational Research, David Mckay workshop on education research with special research on literacy. Geneva
Course Code: 16080202010200
Course Title: Extension Management & Media Production
Course Category: Core
Credit: 04
Contact hour/week=04

Objectives
To unable students to:

- Understand the concepts and process of management.
- Realize the importance of management for achieving organizational goals.
- Apply the principles of management to the management of extension organizations / services.

Contents

1. Concept of Extension Management
   - Definition, nature and process and need
   - Models and principles of extension management

2. Steps in Extension Management:
   - Co-ordination – meaning, objectives, linkage mechanisms – involvement of organizations at local level–non-profit & profit making organizations.
   - Controlling – meaning and process of control – management Control Techniques – budgetary and non-budgetary control – Modern techniques – PERT, CPM, requirements for effective control system.
   - Monitoring and evaluation – meaning, purpose and differences. Types of evaluation, steps in evaluation, efficiency cum performance audit, reporting.
3. **Theories, types and Role of Media**

- Theories and models of mass communication.
- Role of media in communication process
- Various types of media for communication
- Various constraints in the use of media
- Criteria in selection and use of various media
Course Code: 16080202010200P  
Course Category: Core  
Course Title: Extension Management & Media Production  
Credit: 02  
Contact hour/week=04

1. Use and Operations of various audiovisual aids  
   - OHP, Slide projector, Film projector LCD, VCD and DVD.
2. Preparation of visual materials and aids-Booklets, Pamphlets, Leaflet, Manuals, Cover pages for text and other books, - Charts, posters , flesh cards, diagrams, graphs
3. ADHESIVE DISPLAY(felt boards, flannel board, hook-and loop boards, and magnetic boards (prepare any one) , MARKER BOARDS AND ELECTRONIC MARKER BOARDS (use only)

References:


Course 16080202010300 Course Category - Core

ENTREPRENEURSHIP AND MARKETING MANAGEMENT

Credit: 04 Contact hour/week=04

Objectives

- To provide conceptual inputs regarding entrepreneurship management.
- To sensitize and motivate the students towards entrepreneurship management.
- To orient and impart knowledge towards identifying and implementing entrepreneurship opportunities.
- To develop management skills for entrepreneurship management.
- To become aware of different market organizations in our economy.
- To understand the different marketing functions and the distribution system in our economy.
- To familiarize with the marketing strategies and market research.

Contents :

1. Conceptual Framework
   - Concept, need and process in entrepreneurship development.
   - Types of enterprise – Merits and Demerits
   - Concept of marketing.

2. The Entrepreneur
   - Developing Entrepreneurial competencies – requirements and understanding the process of Entrepreneurship development, self awareness, interpersonal skills, creativity, assertiveness, achievement, factors affecting Entrepreneur's role

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.
- Feedback, monitoring and evaluation.

4. Product development and 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.

5. Pricing practices and consumer interest pricing.

6. Advertising, sales Promotion and management.
   - Advertising objectives, functions, benefits
   - Advertising budget and costs of sales promotion
   - Types of advertising
   - Evaluating of advertising effectiveness

References


**Course Code:** 16080202010300P  
**Course Category:** Core  
**Course Title:** Entrepreneurship and Marketing Management Practical

**Credit:** 02  
**Contact hour/week:** 04

1. Preparation of various types of advertisement for eg. Newspaper, leaflets, magazines, hoarding boards,

2. Collect the information of financial and other assistance from various government agencies to start new entrepreneurial business unit

3. Interview any one women entrepreneur and study the same business unit and study: Entrepreneurship and Marketing Management Practices
Course Code: 16080202010401  
Course Category: Elective  
Course Title: MATERNAL NUTRITION  
Credit: 02  
Contact hour/week=02

Objectives

This course is designed to enable the students to:

- Understand physiological changes in pregnancy and lactation.
- Understand the inter-relationship between nutrition and growth and development during life cycle.

Contents

1. Importance of Maternal Nutrition

- Importance of Nutrition prior to and during pregnancy.
- Pre-requisites for successful outcome. effect of under nutrition of mother and child including pregnancy outcome and maternal and child health
- Short and long term.
- Physiology and endocrinology of pregnancy and embryonic and fetal growth and development.
- Nutritional requirements during pregnancy.
- Adolescent pregnancy
- Intra-uterine growth retardation
- Complications of pregnancy and its management

2. Lactation

- Nutritional requirements during lactation
- Human milk composition during lactation
- Human milk composition and factors affecting breastfeeding and fertility.
- Problems-sore nipples, engorged breast, inverted nipples etc.
- Exclusive breastfeeding.
Common disorders of pregnancy: Anemia, TB, HIV Infection, Hypertension, moderate and severe malnutrition

References

2. International Child Health: A Digest of Current Information.
10. ACC / SCN Reports.
Course Code: 16080202010402  
Course Category: Elective

Course Title: RESIDENTIAL INTERIOR SPACE DESIGN

Credit: 02  
Contact hour/week=02

Objectives

- To understand the factors influencing space design organization for optimum comfort and functionalism.
- To understand the application of anthropometric data in designing interior
- To evaluate ergonomically residential interior space for various activities.
- To provide adequate facility for work, relaxation, rest, comfort, privacy, care, aesthetics etc. through interior space designing.
- To study the materials along with fittings and fixtures used in residential interiors.
- To develop skills of drawing the working details and execution drawings.

Contents

1. In-depth understanding of residential interior space design from design point of view.
2. Study of factors influencing furnishing of residential interior spaces. Their use & care.
3. Factors to be considered while designing.
   - Orientation
   - Grouping of user's area.
   - Circulation between and within user's area.
   - Light and ventilation.
   - Flexibility.
   - Privacy.
   - Roominess (Spaciousness).
   - Services.
   - Aesthetics.
   - Cost.
   - Basics of furniture design and types of furniture design.
5. Consideration of ergonomics in interior design.
- Importance of ergonomics in interior design.
- Work, worker and working environment relationships
- Kitchen and storage as most important work area.
- Ergonomical evaluation for health and safety of user in residential space design.
- Study of different body postures used in different activities and its relation to fatigue.

6. Application of appropriate materials for various uses.

References

13. Encyclopaedia of Interior Design.
Course Code: 16080202010403
Course Category: Elective
Course Title: Gender and Development
Credit: 02
Contact hour/week=02
Objectives

To enable students:

- To understand the concept, need, relevance and dimensions of gender empowerment.
- To get sensitised to gender disparities/imbalance and problems of women.
- To understand the efforts at different levels for empowering women.
- To know the support system in the country for women's development.

Contents

1. **Gender and Development**: Concept of gender, gender roles, changing trends, gender analysis matrix. Shift from welfare to development and empowerment, gender in development, gender and development. National and international efforts for gender empowerment.

2. **Status of Women**: Status - meaning, status of women – a situational analysis, demographic, education, employment, political and health (general, occupational, and reproductive). Changing scenario.

3. **Violence Against Women**: Dowry, divorce, female foeticide and infanticide, domestic violence, sexual harassment and exploitation, portrayal of women in mass media. Efforts for elimination of all forms of discrimination.

4. **Policies and Programmes for Women’s Development**: National Policy for Empowerment of women, policy perspectives, mainstreaming, a gender perspective in the development process.
   - Economic empowerment: Poverty eradication, micro-credit, self-help groups, women and agriculture, women and industry and support services.
   - Social empowerment: Education, health, nutrition, drinking water and sanitation, housing and shelter, environment.
   - Legal empowerment: Legal literacy on personal and family laws, role of family court and legal aid centres.
   - Political empowerment: Role of panchayati raj in the political empowerment of women.
References

Course Code: 16080202010404              Course Category: Elective

Course Title: Textile Chemistry

Credit: 02

Contact hour/week=02

Objectives
1. To acquaint the students about the polymers of which the textile fibres are made.
2. To understand the chemistry, production and fundamental properties of natural and synthetic fibres.
3. To familiarise with the chemical processing from desizing to finishing of textiles and principles.
4. To acquaint the students with some advanced textile technology.

Contents

Chemistry Of Cellulosic Fibres
Introduction to cotton, varieties, properties, longitudinal and cross sectional view.
Molecular structure of cellulose, action of acids and alkalis, hydro cellulose and oxycellulose, mercerisation, liquid ammonia treatment.
Regenerated cellulosic fibres – viscose rayon, cuprammonium rayon, cellulose acetate, rayon, polynosic – their manufacture, properties and uses.

Protein Fibres – Wool & Silk
Chemical composition, molecular structure, physical and chemical properties, action of acids, alkalis and other chemical on protein fibres.
Brief description on, felting of wool, degumming and weighting of silk, shrink proofing of wool.

Synthetic Fibres – Polyester, polyamide and acrylonitrile fibres.
Chemistry of the fibres – raw material, manufacturing process from polymer to fibre stage.
Physical and chemical properties of all the fibres and their uses. Examples of commercial production in India.
Blends of different fibres, composition and properties and uses in textiles and clothing.

Other natural and synthetic fibres. Their chemical composition, properties and uses viz. jute, flax, hemp, tencel, polyethylene, polypropylene, carbon, polycarbonate, metallic, glass fibre and polyurethene fibres.
References

11. India Horti business on line, http://www.agroindia.org/1HOL.
Course Code: 16080202010405  Course Category: Elective

Course Title: Rural Development

Credit: 02  Contact hour/week=02

Objectives

- To make students aware about rural Indian society.
- To make students aware about conditions and living in rural areas.
- To make students aware about ongoing rural development programmes.
- To make students aware about need for future development in rural areas.

Contents

1. RURAL DEVELOPMENT - INDIAN CONTEXT
   a. Rural Society and Economy - Introduction to Rural Sociology, Rural Demography, Rural Social Structure, Rural Economic Structure, Rural Poverty
   c. Dynamics of Change in Rural India - Social Change : Mobility & Mobilization, Empowerment information, Education and Communication (IEC), Information Technology and Rural Development

2. RURAL DEVELOPMENT PROGRAMMES
   Poverty Alleviation Programmes – A Retrospect - Poverty Alleviation Programmes – A Retrospect
   Minimum Needs Programme, Integrated Rural Development Programme (IRDP), TRYSEM and DWCRA
   Jawahar Rozgar Yojana (JRY), Employment Assurance Scheme (EAS)
   Programmes for self & Wage Employment and Social Security Current Strategy - Swarnjayanti Gram Swarozgar Yojana (SGSY)-1, Swarnjayanti Gram Swarozgar Yojana (SGSY)-2, Sampoorna Grameen Rozgar Yojana (SGRY), National Social Assistance Programme (NSAP), Food Security – TPDS 9
Other Development Programmes - Prime Minister’s Rozgar Yojana (PMRY), Rural Employment Generation Programme (REGP), Rashtriya Mahila Kosh, Programmes of Development Finance Corporations

Rural Basic Services and Infrastructure - Elementary Education and Total Literacy Campaign (TLC), Rural Housing, Rural Health Care, Drinking Water and Rural Sanitation, Rural Electrification & Energy, Rural Connectivity.


References:
1. Rural Development. O.P.Dhama and Bhattnagar.
2. IGNOU course on Rural Development Material.
Course Code: 16081202010500  
Course Category: Core  

Course Title: Clinical and Therapeutic Nutrition

Credit: 04  
Contact hour/week=04

Objectives:

This Course will enable students to:

- Understand the etiology, Physiologic and Metabolic Anomalies of acute and chronic diseases and patient needs.
- Know the effect of the various diseases on nutritional status and nutritional and dietary requirements.
- Be able to recommend and provide appropriate nutritional care for prevention / and treatment of the various diseases.

Contents

1. Obtaining medical & dietary history of patients.
3. Etiopathophysiology, metabolic and clinical aberrations, complications, prevention and recent advances in the medical nutritional management of:
   - Weight imbalances
   - Cardio vascular disorders
   - Diabetes mellitus and other metabolic disorders.
   - GI Tract Disorders
   - Liver and gall bladder, Pancreatic disorders
   - Renal disorders
   - Stress and trauma
   - Cancer
   - Infection AIDS
   - Respiratory problems
Course Code: 16081202010500  
Course Category: Core  
Course Title: Clinical & Therapeutic Nutrition Practical  
Credit: 02  
Contact hour/week=04  

1. Market survey of commercial nutritional supplements and nutritional support substrates.  
2. Interpretation of patient data and diagnostic tests and drawing up of patient diet prescription, using a case study approach. Follow-up acceptability of diet prescription compliance; discharge diet, plan for cardiovascular disease diabetes. Liver, Renal diseases.  
3. Preparation of diet counseling aids for common disorders.  
4. Planning and preparation of diets for patients with common multiple disorders and complications and discharge diet plans.  

References:  

Journal and Other References Series:

13. Nutrition Update Series
14. World review of nutrition and dietetics.
15. Journal of the American Dietetic Association
17. European journal of Clinical Nutrition
18. Nutritional reviews.
SEMESTER II
## Semester-II: General Home Science

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<th>Course Code</th>
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CC=Course Category, CCr= Course Credit, WH= Working Hours, IM=Internal Marks, EM=External Marks, TM=Total Marks, Course revision year=16, Faculty code=08, Subject code,= 01 for Foods & Nutrition, 02 for General Home Science and 12 for common for both, Level=02 (PG), Sem=01-04, Paper no= 01-05, Options 00 for Core, Multidisciplinary (MD), and Skill oriented (SO), for Elective =01-05

**Interpretation of code** 16080202020100 Here 16 means 2016, 08 Home science faculty, 02 for General home science, 02 means PG level, 02 Semester II, again 01 is paper no and last 00 is for Core course.)
Course Code: 16080202020100  
Course Category: Core  
Course Title: Care of elderly  
Credit: 04  
Contact hour/week=04

Objectives

- To gain knowledge and insight regarding principles of early childhood care and education.
- To develop the skill and techniques to plan activities in ECCE centers of different types, to different types to conduct activities in early childhood care and education and to work effectively with parents and community.

Objectives

- To enable students to become aware and sensitized to issues related to care of the elderly.
- To enable students to understand the theoretical perspectives of the aging process.
- To develop skills for organizing activities for the elderly.

Contents

1. Introduction

- Emergence and scope of gerontology and elderly care.
- Historical perspective, demographic trends in India.
- Concept of aging and problems: Social, medical, psychological problems, occupational etc.

2. Theoretical perspectives

- Theories: Disengagement theory, Activity theory, Human development theory, Continuity theory, Age stratification theory, Labeling theory

3. Aging process

- Biological and physiological aspects, psychological aspects; social aspects;
  Social status, retired status, single status, economic status; security, guide and teacher, social adjustment and recognition;
- Spiritual aspects: karma theory and religion;
- Economic aspects.

4. Adjustment patterns and changing lifestyles in old age
• Family patterns in later life: Changing roles and the aging family; Conjugal: Husband Wife relations in old age; sexual adjustment;
• Retirement years and marital adjustment;
• Intergenerational family relations; grant parenthood; Widowhood/singlehood; Alternative life style; second marriage in the later life.

5. Work, leisure and retirement patterns

• Work - Meaning of work, individual motivation; leisure; Retirement-benefits, freedom of retirees, fear change in personal and social life, problem like-sense of loss, women retirees, awareness, use of authority, social worth;
• Death Dying and Breavement
  - Impact of death on society, Attitude towards death; Denial and thoughts of death; Bereavement, grief and social setting.
• Services and programs for the Aged
  - Categories of services: Housing, health, leisure time activities; institution for the Aged day care centres; economic programmes; Re-engagement (after retirement), Retirement pension, death cum retirement gratuity, provident fund, health measures. Insurance scheme, investment & taxation and property.

References

Course Code: 16080202020200  
Course Category: Core

Course Title: APPAREL AND TEXTILE DESIGN

Credit: 04  
Contact hour/week=04

Objectives
- To impart an in-depth knowledge of style reading, pattern making and garment construction technique.
- To development and understand the principles of pattern making through flat pattern and draping

Content

Theory
1. Detailed study of industrial machines and equipment used for
   - Cutting
   - Sewing
   - Finishing
   - Embellishment
2. Study the interrelationship of needles, thread, stitch length and fabric
   - Calculating fabric requirement.
3. Methods of pattern making
   - Drafting
   - Flat pattern
   - Draping
4. Developing paper pattern
   - Understanding the commercial papper pattern
   - Layouts on different fabrics, width and types
5. Buying criteria for
   - Knits, silks, denim and other special fabrics
   - Selection of appropriate fabrics and designs for different garments, different age groups and seasons
   - Readymade garments
6. Principles of design – harmony, balance, proportion, rhythm and emphasis
7. Elements of design – line and form, color and texture

1. Sources of inspiration for basic sketching and painting: nature, religion and mythology, arts and crafts, architecture.
2. Process of designing with reference to textile design
Course Code: 16080202020200 P

Course Category: Core

Course Title: APPAREL AND TEXTILE DESIGN Practical

Credit: 02

Contact hour/week=04

1. Development of variation in sleeves
   - Sleeves and bodice combinations
2. Necklines and facings
   - Scoped necklines
   - Built-up necklines
   - Cowl necklines
3. Plackets
   - Center button closing
   - Asymmetric closing
   - Double breasted
4. Textile Design Analysis
   Structural and applied design variation - embroidery, dyeing, printing
5. Motif development – geometrical, simplified, naturalized, stylized, abstract and ornamental
   - Big and small motifs – enlargement and reduction, growth of a motif Combining motifs
     a) big and small and b) different sources
6. Colour consideration – colour harmonies and colour ways
7. Placement and repeats for all over patterns.
8. Introduction to related computer software
9. Design of Indian and western apparel.

References

12.

References
1. Armstrong, Pattern making for fashion design
2. Gioello and Berke: Figure type range, Fairchild publication, New York.
8. Natalie Bray: Dress Fitting Published by Blackwell Science Ltd.,
Course Code: 16081202020300  
Course Category: Core  
Course Title: FOOD SCIENCE  
Credit: 04  
Contact hour/week=04  

Objectives:
This Course is designed to:

- Provide an understanding of composition of various food stuffs.
- Familiarize students with changes occurring in various foodstuffs as a result of processing and cooking.
- Enable students to use the theoretical knowledge in various applications and food preparations.

Contents:

1. Constituents of Foods: Properties and significance

2. Water and Food Dispersions:
   - Free and bound water
   - Water activity and Food Spoilage
   - Freezing and ice structure
   - Colloidal salts, stabilization of colloidal systems, Rheology of food dispersions
   - Emulsions: Formation, stability, surfactants and emulsifiers.
   - Foams: Structure, formation and stabilization.

3. Polysaccharides, Sugars and Sweeteners
   - Starch: Structure, gelatinization, methods for following gelatinization changes.
   - Characteristics of some food starches. Effects of ingredients and conditions on gelatinization. Modified food starches.
   - Cellulose, hemicelluloses, pectins, gums.
   - Sugars and Sweeteners: Sugars, syrups, sugar alcohols, potent sweeteners, Sugar products.
   - Sweetener Chemistry related to usage in food products: solubility & crystallization, hygroscopic, fermentation & non-enzymatic browning.
4. **Fats**: Functional properties of fat and uses in food preparations. Fat deterioration and antioxidants.


6. **Beverages**: Synthetic and Natural, alcoholic and non-alcoholic, carbonated and non-carbonated, coffee, tea, cocoa, malted drinks.


8. **Food colourents**: Pigments in animal and plant tissues, Food colours – Types, properties, safety issues

**REFERENCES**


**JOURNALS**

1. Journal of Food Sciences.

2. Advances in Food Research

3. Journal of Food Science and Technology


5. Cereal Science

6. Journal of Dairy Science

Course Code: 16081202020300P  
Course Category: Core  
Course Title: FOOD SCIENCE Practical  
Credit: 02  
Contact hour/week=04

1. Effect of solutes on boiling point and freezing point of water.
2. Effect of types of water on characteristics of cooked vegetables, pulses and cereals.
3. **Sugar ad Jaggery Cookery**: Relative sweetness, solubility and sizes of sugars, stages of sugar cookery, caramelization, crystallization, factors affecting crystal formation.
5. **James and Jellies**: Pectin content of fruits, role of acid, pectin and sugar in jam and jelly formation. Use of gums as emulsifiers / stabilizers.
6. **Gelatin**: Gelation, gel strength and factors affecting gelation. Ability to foam.
7. **Leavened Products**: Fermentation – Use of Micro organisms (lactic acid, yeast), Steam as an agent, egg as an agent, chemical agents.
8. **Beverages**: Factors affecting quality of beverages.

**REFERENCES**


JOURNALS
9. Advances in Food Research
10. Journal of Food Science and Technology
12. Cereal Science
13. Journal of Dairy Science
Course Code: 16081202020401  Course Category: Elective

Course Title: Nutrition for Health & Fitness

Credit: 02  Contact

hour/week=02

Objectives

This course will prepare the students to:

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

Contents


5. Dietary supplements and Ergogenic aids: Definitions, types and use of different ergogenic aids like nutritional, physiological, pharmacological etc and commercial supplements, Sports drinks, sports bars etc. Regulations regarding dietary supplements and ergogenics.

References


Journals


2. International Journal of Sports Nutrition
Course Code: 16080202020402  Course Category: Elective

Course Title: Consumer information and Redressal

Credit: 02  Contact hour/week=02

Objectives

- To equip and impart knowledge on consumer related facts and issues
- To provide an understanding of the significance of consumer information
- To develop and acquire skills in consumerism and utilizing the provisions in redress mechanism

Contents

1. Consumer movement
   - Origin and growth
   - Philosophy, objectives
   - Consumer movement in developed countries and global experience—a brief overview.
   - Indian experience, reasons for slack in consumer movement. Future of consumer movement in India.

2. Consumer protection
   - Legal problems in buying and paying for goods and services.
   - Consumer representation—Govt. agencies, consumer organization, legal cells in industries, public interest legislation.
   - Quality control and standardization—national and global

3. Consumer information
   - Need and significance
   - Sources
   - Consumer services—public and private—merits and limitations.
   - Institutional support—corporate accountability, Government policies and responsibilities.
   - Do’s and Don’t’s towards better consumerism

4. Consumer redressal
   - Definitions of consumer, complaint, complaint service, unfair trade practices as given in CPA.
   - Procedure for filing a complaint appeal to district, state and national commissions.
   - Some tips for ensuring redressal.
5. Alternative redressal mechanism for consumer grievances
   - Verbal and written complaints
   - Media connected services
   - Third party assistance – Arbitrator, ombudsman
   - Institutional assistance
   - Lok Adalats
   - Public interest litigation
   - Government and other agencies

6. Project and research in consumer affairs – visit to consumer redressal forums.

Reference

Course Code: 16080202020403  
Course Category: Elective

Course Title: Child and Human Rights  
Credit: 02  
Contact hour/week=02

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

1. Definition and Evolution of Rights
   - Human rights
   - Child rights
   - Women's rights

2. Status of Indian Children and their rights
   - Gender disparities (infanticide, foeticide, girl child).
   - Children in difficult circumstances (Children of prostitutes, child - prostitutes, Child labour, street children, refugee children and child victims of war).
   - Children with special needs.

3. 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

8. Human Rights
   - Moral rights
     a. Legal rights
b. Civil and political rights

1. 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 Rasta Sangh, Satis Chaturvedi
Course Code: 16080202020404  Course Category: Elective

Course Title: Color Science and Instrumentation

Credit: 02  Contact hour/week=02

Objectives

1. To develop an understanding of the scientific aspects of colour, difference between dye and coloured compound.
2. Understanding of colour formulation, assessment of colour differences, colour, sorting techniques and colour perception.
3. To understand theory of colour measurements in solution and on textiles and the instruments used for colour measurement.
4. To acquaint students with the recent developments regarding eco-regulation and banned dyes.

Contents

1. Nature of light:
   ii) Relation between colour and chemical constitution of dyes, to acquaint with colour index.
   iii) Instruments for the measurement of colour, principles of spectrophotometry, early colorimeter, absorption spectroscopy, Beer-Lambents law, single beam and double beam spectrophotometer.
   iv) Colour mixing system, colour order system, CIE Colour specifications, Illuminant, yellowness Index and whiteness index, reflectance spectrophotometer, Kubelka-Munk Theory, Relation between K-S and concentration of colourant, understanding colour difference, hue, chroma etc.
   v) Introduction to chromatography and basic instrumentation; Application of Thin layer chromatography, HPLC and GC in dye analysis.
References

1. Colour physics for industry, Ed., by Roderick McDonald, Published by the Society of dyers and colourists.
Course Code: 16080202020405  Course Category: Elective

Course Title: Program design and Evaluation

Credit: 02  Contact hour/week=02

Objectives

To enable students:
- To understand the changing concept of extension.
- To get acquainted with the trends in extension approaches and models.
- To identify the support system development for extension education.

1. Programme planning

- Meaning and importance of programme planning in extension.
- Principles of programme planning: programme development cycle and its components.
- Programme projection: difference between Programme projection and planning.
  Identifying felt needs of people, collection of base line data

2. Plan of work

- Meaning, importance, components of a plan of work, developing a plan of work,
  Factors to be considered in preparing the plan of work.

- Pre-requisites for developing plan, guidelines for developing a written annual plan,
  criteria for judging the plan of work.

- Meaning of resource, types of resources, identification and appraisal of resources,
  resource mapping, computer application for programme planning.

- Resources for programme planning.

3. Programme Implementation

- Aspects of execution Factors responsible for the successful conduct of a programme.

- Role of officials and non officials in programme implementation.

- Linkages with other agencies. Problems in implementation.

4. Evaluation and Follow up

- Meaning and purpose of evaluation, types of evaluation, self evaluation, criteria for evaluation

- Tools for evaluation, observation sheet and checklist.

- Follow-up: Need for follow-up, methods for follow-up, correspondence, meetings.
5. Documentation

- Need for reporting
- Procedures for recording-aspects to be covered.
- Records and registers to be maintained in programme implementing institution

References

Course Code: 16081202020500  Course Category: Skill Oriented

Course Title: Statistics & Computer Application

Credit: 04  Contact hour/week=04

Objectives:

- To understand the role of statistics and computer applications in research.
- To apply statistical techniques to research data for analyzing & interpreting data meaningfully.

**NOTE:** Students should be given hands on experiences to use appropriate software packages for selected statistical analyses.

Unit I: Statistical Analysis

- Conceptual understanding of statistical measures
- Measurement of central tendency
- Measurement of variation
- Skewness and Kurtosis
- Properties and uses of Binomial and normal distribution

Unit II: Testing of Hypothesis

- Typr I and Type II errors
- Levels of Significance

Unit III: Parametric – Small and Large sample test

- Chi square test
- Independence of Attributes 2x2 and rxc contegency tables

Unit IV: Student 't' test and F test

Unit V: Correlation, coefficient of correlation
Course Code: 16081202020500P  
Course Category: SO

Course title: Computer Application Practical

Credit: 02  
Contact hour/week=04

1. MS Office. (A) MS Word (B) MS Excel (C) MS Power point
2. SPSS

References:


SEMESTER  III
## Semester-III: General Home Science

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Course Code: 16080202030100  
Course Category: Core  
Course Title: DEVELOPMENT COMMUNICATION (Core)  
Credit: 04  
Contact hour/week=04

Objectives
- To understand the concept of development, its indices and relationship with development communication.
- To understand the concept of development communication and its relevance to fostering development.
- To impart knowledge about the processes involved in developmental communication with special emphasis on design of communication strategy.
- To impart skill and knowledge about the relevance, potential and use of various media in development communication with due consideration to government policies and regulations.

Contents

Theory

1. Basic Concept: Development
   - Definition, Basic concept, nature, evolution, significance, functions and dysfunctions, dynamics of development.

2. Basic Concept: Development Communication
   - Definition, evolution with respect to historical and cultural perspective of development communications.
   - Nature, role and significance of development communication
   - Models of development communication
     1. Interdependent model
     2. Dependency model
     3. Basic needs model
     4. New Paradigm of development
     - Approaches to development communication – Diffusion and Extension approach, participatory approach
     - Strategies in development communication.

3. Media in Development Communication
   - Understanding the role of traditional and modern media in development communication.
- Use of folk media, puppetry, exhibitions, theatre, posters, print media (news papers, books, leaflets, IEC material), radio, television and cinema.
- Government policies and regulations on mass media in India.
- Understanding and analysis of the ongoing Govt. and non-governmental efforts in development communication.
- New avenue for development communication – literacy, women and development, human rights, environment.
Course Code: 16080202030100 P

Course Category: Core

Course Title: Development Communication Practical

Credit: 02

Contact hour/week=04

1. Case studies in development communication (eg. Beneficiaries of government program, yojana, Mahila mandal etc.)
2. Dealing with various issues in development communication through the use of folk media.
3. Project preparation on specific area in development communication, with the use of PRA and RRA techniques.

References:
7. Journal of Communication
DYEING AND PRINTING

Objectives
1. To impart the knowledge about preparation of fabric for dyeing & printing.
2. To understand the theory of dyeing in relation to various classes of dyes.
3. Application of various dyes & properties related to it.
4. To introduce the concept of dyeing at commercial level.
5. To inculcate awareness of the different methods of printing and appreciate the technical advantages of each.
6. To develop technical competency in printing with different dyes on different fabrics.

Theory
1. Preparation of fabric for dyeing & printing
   - Scouring, bleaching, designing
   - Reagents used & their application
   - Specific preparatory steps for cotton, wool, silk & man made fibres
   - Equipment used at cottage & industrial level for yarn, fabric & price goods
2. Dye
   - Classification, definition, components
   - Colour & chemical constitution of dyes
   - Dyeing with chemical dyes
     a. direct, reactive, vat, sulphur, azo [for cellulosic]
     b. acid, metal compex, chromemordent [for protein]
     c. basic, nylomine, disperse [for man-made]
   - Dyeing with natural dyes
   - Use of pigments
   - Dyeing machines for fibers, yarns & fabrics
   - Industrial dyeing practices
- Dyeing auxiliaries & their uses
- Dyeing of blends

3. Textile design through dyeing
   - Tie & dye
   - Batik
   - Union & Cross dyeing

4. Dyeing defects & remedies

5. Introduction to printing – difference between dyeing and printing.

6. Methods of printing
   - Historical development of printing methods – block stencil, screen roller and rotary screens used at cottage and industrial level.

7. Printing pastes – Thickening agents and auxiliaries for printing and their suitability to various classes of dyes and fibres. Preparation of printing pastes for different dyes and different fibres.

8. Styles of Printing
   - Direct style, dyed, resist or reserve style, discharge style and raised style.
   - Styles and methods of printing traditionally used in India.
Course Code: 16080202030200 P
Course Category: Core

Dyeing and Printing (Pra)

Credit: 02
Contact hour/week=04

Practicals

1. Preparation of fabric for dyeing & printing
2. Dyeing of yarns & fabric with different classes of dyes, in fibre & fibre blends (variables – MLR, con, temp, leveling/exhausting agents)
   - Direct, reactive, vat, sulphur, azo
   - Acid, chrome, metal complex
   - Basic, disperse
   - Natural dyes
3. Preparation of fabric for printing – different fibre groups with different dyes, different styles of printing.
4. Preparation of screens for printing
5. Printing with blocks and screens on cotton, silk, wool and cotton wool, cotton silk and cotton polyester blends in different styles with different dye classes.
   - Direct style
   - Mordant or dyed style, Azok style
   - Discharge style
   - Resist style
   - Raised style
   - Transfer printing
6. Finishing the printed goods
7. Reports of visits to processing and printing units – cottage and industrial level.

References

8. ASTM and ISI Standards.
Course Code: 16080202030300  
Course Category: Core

**Course Title: CARE OF CHILDREN WITH DISABILITIES AND ILLNESSES**

Credit: 04  
Contact hour/week=04

**Objectives**

- To gain information on different impairments and illnesses that affect children.
- To be sensitive to desires and wishes of children.
- To identify and assess impairment, illnesses, disability and the child's physical and social environment.
- To plan for inclusive educational programmes for children and involving the disabled child in the process.
- To become sensitive to concerns of parents of children with disabilities and collaborate with them for children's education and development.
- To interact and relate sensitively with children with disability, accepting individual differences and enable others to do so.

**CONTENTS**

1. Different types of impairments and serious illness, causes and the effects on children.
   - Physical, intellectual, sensory and emotional impairments.
   - Illnesses such as juvenile diabetes, asthma
2. The philosophy of inclusion.
3. Attitudes of others in the family and community.
4. Techniques for identification and recording progress.
5. Physical, organizational and social barriers in the development of children with disabilities
   - Modification and adaptation of physical and social environment, the meaning of inclusion, enabling participation of children with disabilities in the school and
community so that they have a sense of belonging as well a opportunity to become contributing members.

6. Use of assistive devices.

7. Listening to children and including their views in life at school and home.

8. Care of the child in the family, role of parents, siblings and other members.

9. The rights versus needs of the children.

10. Examples of programmes for children with disabilities, innovative projects.

Course Code: 16080202030300P  
Course Category: Core  
Course Title: CARE OF CHILDREN WITH DISABILITIES AND ILLNESSES PRACTICALS  
Credit: 02  
Contact hour/week=04

1. Planning and working with children and parents.  
2. Case study of a child with disability and illness.  
3. Case study of one organization each for children with Blindness, Deaf and Dumb and mentally retarded with particular reference to its physical and social environment.  

References

Journals
1. Disability and Society  
2. Action Aid Disability News  
3. Impairment and disability.  
4. Asia Pacific Disability Rehabilitation Journal
Course Code: 16081202030401  Course Category: Elective

Course Title: Dietetic Techniques & Patient Counseling

Credit: 02  Contact hour/week=02

UNIT -I
Dietician as part of the medical team and outreach services. Role of diettician. Essential qualities

UNIT -II
Medical history, assessment techniques for obtaining relevant information from patients profile.

UNIT -III
Dietary diagnosis and tests for nutritional status correlating clinical and dietary information.

UNIT -IV
Patient counseling Assessment of patient needs, establishing rapport and counseling relationship, resources and aids to counseling relationship, resources and aids to counseling.

UNIT -V
Aesthetic attributes - Nutritional significance of diet for different clinical conditions. Follow visit and patients education.

Reference:
3. Field Exchange, Newsletters by Emergency Nutrition Network, Dept. of Community Health and General Practice, Ireland.
Course Code: 16080202030402  
Course Category: Elective  
Course Title: Ergonomics  
Credit: 02  
Contact hour/week=02  
Objective  
To become aware of the role of ergonomics in work effective and efficiency.  
To understand the environment factors contributing to productivity, safety, control and well being of individual performing the work.  
Contents  
1. Ergonomics  
   - Scope of work in household and other occupations.  
   - Nature of work in household and other occupations.  
   - Interdisciplinary and applied nature of ergonomics as a field of study.  
   - Man-Machine-Environment system.  
2. Physiological Aspect of work  
   - Structure and function of the muscles.  
   - Biochemistry of muscle work.  
   - Physiological factors involved in muscular work.  
   - Carbohydrates, fats & proteins  
   - Oxygen  
   - Cardio-vascular and respiratory system  
   - Thermo-regulatory system  
      - Sources of energy for muscular work  
   - ATP, Energy currency  
   - CP, energy reserve  
   - Food, carbohydrates, fats & proteins  
      - Static and dynamic muscular effort  
      - Energy requirement for muscular work and efficiency  
      - Energy expenditure for different activities.  
   - Endurance and muscular strength  
      - Dynamometer  
      - Skill  
      - Maximal work  
      - Speed  
      - Factors effective physiological reaction doing work.  
   - Workload and Posture  
3. Anthropometry and Biomechanics  
   - Definition, scope
- Human body as a system of levers
- Identification and analysis of postures
- Effect of wrong postures on cardio vascular and muscular skeletal system.
- Correct techniques of lifting and carrying weights.
- Principals of motion economy
- Design application of Anthropometry.
- Work centers
- Equipments and Tools
- Others items of concern/protective use.

4. **Environment**
   
   - Physical
   - Heat
     - Thermal regulation of the body at rest and during work.
     - Thermal balance
     - Factors responsible for exchange of heat between body and surrounding environment.
     - Heat stress
     - Thermal comfort
     - Noise-music
   - Effect of noise, music on productivity and well-being
   - Vibrations and its effect on body parts during work with vibrating tools
   - Lighting and colour
   - Atmospheric pollution
   - Psycho-social Environment

5. **Engineering Psychology**

6. **Ergonomic consideration for the physically challenged**

**References**

11. Kumar shrawan(19697) perspective in rehabilitation rehabilitation ergonomics taylor & Francis, London.
12. Steidle and braton work in home
16. Anshel, Jeffrey(1998) visual ergonomics in the workplace, Tylor and francis londan
Course Title: Guidance and Counseling

Objectives

- To understand the need for guidance and counseling in human development.
- To introduce basic concepts in guidance, counseling and therapy.
- To discuss the processes involved in counseling at different stage in life.

Contents

1. **Construct of guidance, counseling and therapy**
   - Basic differences.
   - Guidance and counseling needs of individuals, families and systems.
   - Role of culture in influencing counseling needs and practices.

2. **(A) Nature of psychological disorders at different stages that require counseling and therapy**
   - At childhood
   - At adolescence and youth
   - At adulthood
   - In old age
   
   **(B) Types of crises: natural disasters, manmade crisis situations.**

3. **principles of counseling and therapy**
   - Approaches to counseling at different developmental stages.
   - Family therapy approach.
   - Qualities and skills of a counselor

4. **The process of counseling**
   - First contact, assessment, intervention, closure, follow-up

5. **Guidance and therapeutic intervention for vulnerable/special groups of children and adolescents**
   - Normal developmental stages & basic needs
- Children in difficult circumstances
- Separation, loss and death
- Effect of crises events on different age groups
- Intervention techniques
- The role of the family
- Special issues in treating children

References:

4. Medicine sans frontiers (MSF)
   - Mental health training manual
   - Shocking events and stressful situation- their emotional consequences.
     Amstedram, april 1993
5. save the children
6. Schauer, Margarete
   - Posttraumatic stress (PTSD) and extreme stress (DES).
   - First aid kit for the mental health team providing psycho-social service for the severely traumatized kosovo Albanians in the refugee camps. MSF mental health- Macedonia 1999
7. World health organization
   - Mental health of refuges, geneva, 1996
Course Code: 16080202030404  
Course Category: Elective  

Course Title: Fashion Retailing  

Credit: 02  
Contact hour/week=02

Objectives

- To understand the dynamics of fashion and role of fashion designers  
- To develop understanding visual merchandising and its importance in today’s consumer market.  
- To gain knowledge about the management aspect of retailing.

Contents

1. The Dynamics of Fashion  
   Fashion Terminology, Fashion Cycle, Fashion Adoption Theories, Fashion Forecast, the role of designers in merchandising.

2. The Concept of Retailing  
   Definitions, Role of retailing in merchandising, the retail mix, retail environment, types of retail stores.

3. Elements and Principles of Art and Design  
   Elements of Design: Colour, texture, line, form, space  
   Interpretation for designing a retail store.  
   - Plans and schedule –seasons, holiday promotions, sales, themes /ideas.  
   - Types of Displays – Window displays ,interior displays.  
   - Elements of Display – The merchandise ,the backdrop walls and shelves mannequins and forms ,signage lightings – illuminance levels ,relation to colour.

4. Planning and Budgeting for a Retail Store  
   Maintenance and ordering of stocks, preparation of sales reports.

5. Recruitment and Management of Sales Force, Types of compensation packages for sales force, Personal Selling as a means of Promotion
References

Course Code: 16080202030405
Course Category: Elective

Course Title: Sustainable Development

Credit: 02
Contact hour/week=02

Objectives

To enable students:

- Understand the concept of sustainability and development.
- Critically evaluate the interlinkages of people’s participation and sustainable development.
- Understand community resources and identify the trends in the extent and consequences of their utilization.
- Evaluate existing structures and established arrangements for sustainable management of community resources.
- Understand the relationship between environmentally sound technologies and sustainability.

Contents

1. Concept of sustainable development
   - Sustainability – meaning, concept and implications for development. Sustainable development – concept, philosophy, goals and challenges.
   - Dimensions of sustainable development: social, spiritual, economic, educational security.
   - Theories of development, changes in the concept of development, factors leading to change.

2. People’s participation and sustainability
   - People’s participation – history, concepts and controversies, types and forms in development initiatives.
   - Relationship between participation, learning and sustainability. Inter linkages of people’s participation for building local knowledge, capacity of people and local institutions.

3. Sustainability and community resource perspective
   - Community resources – a perspective – concept of resources – natural and shared resources, ecological (air, water, fuel, flora, fauna) institutional inputs (community groups/net works understanding resources, their interdependency. Indicators of environmental unsustainability – new paradigm of development.
4. Management of community resources and sustainability
   - Trends and changes in the management of community resources. Institutional practices and policies influencing community resource management, community based organisational structures and practices, state, NGOs and other driven structures, policies, advantages and disadvantages.
   - Factors affecting sustainability of community resource management initiatives - institutional sustainability, credibility, public image, style of functioning, human resource accountability.
   - Programme sustainability: participation, capacity building, training, skill development, developing leadership, self-reliance, gender issues.
   - Financial sustainability: corpus funds, assets, net working.

5. People's initiatives and sustainability
   - Ecology and resource conservation: concepts, bio diversity, resource conservation methods, renewable energy and resources, role of women.
   - Environmentally sound technologies: their impact on sustainable management of resources, adoption patterns, impact on lives of people, technologies for agriculture, water management, fuel and energy conservation, and soil fertility.
   - Initiatives by different societal structures for food production methods and practices and sustainable farming, water management practices for sustainable management of forests for fuel and fodder needs of communities.
   - Environment and habitat
   - Advantages and lacuna in the initiatives of different societal structures in sustainable community resource management initiatives.

References
Course Code: 16081202030500
Course Category: Skill Oriented
Course Title: SCIENTIFIC WRITING (Skill-Oriented)
Credit: 04
Contact hour/week=04

Objectives:

- To be able to appreciate and understand importance of writing scientifically.
- To develop competence in writing and abstracting skills.

Contents

Unit I: Scientific writing as a means of communication

- Different forms of scientific writing
- Articles in journals
- Research notes and reports
- Review articles
- Monographs
- Dissertation
- Bibliography
- Book chapters and articles

Unit II: Outlines

- Concept of outline
- Importance of outlines
- Objectives of outline
- Types of outlines

Unit III: General principle of writing

- preparing a text for submission and publication
- Drafting
- Outline
- Proof reading
- Brevity and precision
- concepts of preface
- notes (end and footnotes), glossary
- prologue and epilogue
- appendix
- bibliography (annotated) and references cited
- review and index
Unit IV: Dissertation/ Research reports/ Thesis

- Introduction
- Review of literature
- Research design
- Results and discussion
- Summary
- Abstracts
- References/ bibliography
- Justification and recommendations

Unit VI: Writing for Grants

- The question to be addressed
- Rational, importance and justification
- Empirical and theoretical framework
- Pilot study
- Research proposal
- Research design
- Stage wise organization of study
- Expected outcome and importance
- Available infrastructure and resources
- Budgeting
- Executive Summary

References

3. Dunn, F.V. & Others. (Ed.) Disseminating research: Changing practice, N.Y. Sage


SEMESTER IV
### Semester-IV: General Home Science

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**Total**: 24  30  135  465  600

CC=Course Category, CCr= Course Credit, WH= Working Hours, IM=Internal Marks, EM=External Marks, TM=Total Marks, Course revision year=16, Faculty code=08, Subject code= 01 for Foods & Nutrition, 02 for General Home Science and 12 for common for both, Level=02 (PG), Sem=01-04, Paper no= 01-05, Options 00 for Core, Multidisciplinary (MD), and Skill oriented (SO), for Elective =01-05 (Interpretation of code 16080202040100 Here 16 means 2016, 08 Home science faculty, 02 for General home science, 02 means PG level, 04 Semester IV , again 01 is paper no and last 00 is for Core course.)
Course Code: 160802040100  
Course Category: Core

Course Title: COMMUNICATION TECHNOLOGIES IN EXTENSION

Credit: 04  
Contact hour/week=04

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

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

2. Media Systems: Trends and 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, co-existence 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.
3. 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.

4. Computer Graphic Designing
   - Introduction to Basics of Computers.
   - Advantages of Digital Multimedia.
   - Introduction to Graphics.
   - Drawing objects, shaping, transforming, stretching, mirror and scaling, making curves, lines rectangles, circles and ellipses. Creating special effects, editing it, extruding an object and using blends.
Course Code: 16080202040100P  
Course Category: Core

Course Title: COMMUNICATION TECHNOLOGIES IN EXTENSION Practical
Credit: 02  
Contact hour/week=04

1. Designing a visual composition-book cover and Folder with the help of computers.
2. Evaluation of advertising, a newspaper story, a radio programme and a television broadcast (Any two).
3. Planning, development and evaluation of communication strategies and techniques for selected traditional, print electronic and outdoor media systems.
4. Preparing effective advertisements keeping in consideration headlines, illustration, slogan, logo, seal of approval and colour effectiveness with the help of computer.

Reference
Course Code: 16080202040200  Course Category: Core

COURSE TITLE: INSTITUTIONAL MANAGEMENT

Credit: 04  Contact hour/week=04

Objectives:

- To develop a knowledge base in key areas of Institutional Food Administration
- To provide practical field level experience in Institutional Food Administration.
- To impart necessary expertise to functional as a food service manager
- To equip individual to start their own food service unit leading to entrepreneurship
- To develop critical abilities and provide basic grounding in research techniques.

Content:

Unit 1 : History and Development of Food Service System
Unit 2 : Planning a Food Service Unit
Unit 3 : Setting up a Food Service Unit
Unit 4 : Entrepreneurship and Food Service Management
Unit 5 : Menu Planning: Focal Point of all Activities in Food Service Establishment
Unit 6 : Food Purchasing and Storage
Unit 7 : Quantity Food Production - Planning and Control
Unit 8 : Quantity Food Production - Kitchen Production
Unit 9 : Food Management: Records and Controls
Unit 10 : Delivery and Service- Goals and Issues
Unit 11 : Delivery and Service: Styles
Unit 12 : Delivery and Service in Different Systems
Unit 13 : Administrative Leadership
Unit 14 : Staff Planning and Management
Unit 15: Personnel Functions: Work Productivity

Unit 16: Plant and Equipment Maintenance

Unit 17: Plant - Sanitation and Safety

Unit 18: Issues in Food and Worker Safety and Security

References: Management


Personal management


Cost Control


Layout and Design
Course Code: 16080202040300

Course Category: Core

Course Title: ADVANCE APPAREL AND FASHION DESIGN

Credit: 04

Contact hour/week=04

Objectives

- The course aims at providing in depth working knowledge of line development and enables a student to use and practice skills and knowledge already acquired, use it to market situation.
- To help develop skills in pattern making and construction.

Contents:

Theory

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**
   - Maternity and lactation period
   - Old age
   - Physically challenged

3. **Elements used in creating design.**
   - Concept and scope of fashion, design, classification of fashion.

4. **Composition**
   - With one element
   - With more than one element.

5. **Colour** – its sensitivity and composition in dress.

6. **Harmony** – in form of space coverage to design of dress.

7. **Components of fashion** :-
   - Silhoutte
   - Details
   - Colour
   - Fabric
   - Texture
   - Seams
   - Trims

8. **Fashion Forecasting**

9. **Study of Markets and Segments**
10. Design professionals.

11. Knowledge of Fashion Trends, Brands and Designers,
   - Introduction to designers
     National designer
     International designers,

12. Business opportunities and avenues, Interdepartmental relationship for Merchandiser, Boutique handling
Course Code: 16080202040300P  
Course Category: Core

Course Title: ADVANCE APPAREL AND FASHION DESIGN Practical

Credit: 02  
Contact hour/week=04

1. **Sketching**
   - Sketching of different action croquic (front, back and the side view)  
     (computer Application)
   - Garment and garment details
   - Accessories

2. **Developing a line of garments on a theme** (any one of the following)
   - Casual wear
   - Sports wear
   - Cocktail wear
   - Executive wear

3. **Understanding and sketching theme based on fashion forecast.**
   - Sourcing of raw materials
   - Developing line, based on fabric and theme selected
   - Spec sheet study
   - Sampling
   - Garment analysis
   - Costing – construction of garments
   - Line presentation
   - Use of sale promotion material
   - Designing of 1 garment for selected theme drafting and making patterns for the same, construction of any one garment.

Reference:

11. Natalie Bray, Dress Fitting , Published by Blackwell Science Ltd.
12. Margolis, Design your own dress pattern, Published by Double Day and Co. Newyork.
Course Code: 16080202040401  Course Category: Elective

Course Title: Public Nutrition

Credit: 02  Contact hour/week=02

Unit-I

UNIT -II
Nutrition during life span pregnancy, lactation, infancy, preschool age, school going and dolescents, adults and old age.

UNIT -III
Approaches and strategies for improving nutritional status and health - Programmatic options their advantages and demerits. Intervention Programmes Health based interventions, Food based interventions including fortification and genetic improvement of foods, supplementary feeding. Malnutrition and Health economics - Its impact on productivity and national development. Cost management.

UNIT -V
Information Education Communication approaches to improve health and nutrition: Concepts Scope- Elements- Models of communication - Communication Process - Approaches and Barriers to communication, Communication for Extension Education and Development - Introduction to IEC Aims and Objectives, Importance of IEC, relevance to programmes - Nutrition education for behaviour change Rationale, Planning Execution and evaluation - Intervention Programmes Health based interventions, Food based interventions including fortification and genetic improvement of foods, supplementary feeding- Different Media, their characteristics and use- IEC for different target groups.
Nutritional Status

- Determinants of nutritional status of individual and populations: Nutrition and Non-nutritional indicators: socio-cultural, biologic, environmental and economic.

Major Nutritional Problems – etiology, prevalence, clinical manifestations, preventive and therapeutic measures of:
- Macro and micro nutrient deficiencies
- Other nutritional problems like lathyrisms, dropsy, aflatoxicosis, alcoholism and fluorosis.
- Overweight, obesity and chronic degenerative diseases

National Food and Nutrition Policy, Plan of Action and Programmes.

Approaches and Strategies for improving nutritional status and health:
Programmatic options- their advantages and demerits. Feasibility, political support, available resources (human, financial, infrastructural) Case studies of selected strategies and programmes: their rationale and context, how to select interventions from a range of possible options:

- Health-based interventions, Food-based interventions including fortification and genetic improvement of foods, supplementary feeding, Nutrition education for behaviour change

10. Policy Analysis and Operational Research
References


3. SCN News, UN ACC/SCN Subcommittee on Nutrition.


5. Census Reports.


19. Documents and Reports published by the International Vitamin A Consultative Group

20. Documents and Reports of the International Nutritional Anemia Consultative Group


Course Code: 16080202040402  
Course Category: Elective

Course Title: Human Resource Management

Credit: 02  
Contact hour/week=02

Objectives

- To understand the various methods and techniques of human resource planning and human resource audit.
- To analyse factors for optimum manpower development.

Contents

Manpower planning
Setting manpower standard
Skilled labour
Integrated budget for man power planning
System and analysis approach to manpower management
Controlling manpower costs
Quantitative and qualitative approaches to manpower economy

References

Course Code: 16080202040403  

Course Category: Elective

Course Title: Family and Child Welfare

Credit: 02  
Contact hour/week=02

OBJECTIVE: -

To enable students to become aware and sensitized to issues related to welfare of child, women & elderly.

Content:

Unit-I

Welfare Services Community introduction

a) Concept of Welfare of Women, child & elderly.

b) History of Women & child welfare in India.

Unit-II

Agencies working for welfare of Women

a) Central and state social welfare board.

b) Bhartiya Grameen Mahila Sangh

c) Kasturba Gandhi National Memorial Trust.

d) All India Women’s Conference

e) SEWA (Self – Employed Women’s Association)

f) Women’ study centre, Chetna

g) Women’s Universities.

h) Role of NGOs

i) Legislations for Women’s Welfare.

Unit-III

Agencies working for the welfare of children

a) Indian Council of child welfare.

b) National institute for public cooperation and child development.

c) Integrated child development services.

d) Central Social Welfare Board.

e) Nutrition programmes in the Country.

f) Legislation related to child welfare

g) World bank.

h) Role of NGOs in welfare of Children.
Unit-IV

The Aged in India.

a) Policies and programmes.
b) Role of Voluntary organizations
c) Old Age home, day centres

REFERENCES:

• Sharma M.L. & T.M. Dak eds, “Aging in India”.
• Mala D. Shubham, “Women, Tradition & Culture
Course Code: 16080202040404  
Course Category: Elective  
Course Title: Textile Testing & Quality Control  
Credit: 02  
Contact hour/week=02

**Objectives**

- To develop an understanding of methods and technique used to analyse textile fibre, yarns and fabrics for end-use performance.
- To acquire knowledge and understanding of various structural properties of textiles and relate them to end use fabric performance and product.
- To familiarise students with the different testing equipments, their underlying principles and the international accepted standards, test methods and the language of measurement.
- To be able to analyse and interpret the results and predict the general textile testing.

I. Introduction to Textile Testing
   - Concept and scope
   - Application areas
   - Use of statistics in data management
   - Sampling procedures

II. Total quality management (TQM) approach in the field of Textiles & Clothing.

III. Standardisation
   - Organisations for Standardisation (National and International).
   - Quality control of Textile products.
   - Quality standards as applicable to various types of textiles (Garments, yardage, knits, woven, carpets, processing, dyeing).

IV. Properties of textiles at different stages of processing and their principle of measurement.
   - Fibres – length, fineness, evenness
   - Yarn –strength, evenness, openness, load, elongation, crimp.

V. Concept of Statistical QC
   - Sampling
   - Test methods used
   - Tolerance limits, CV%
References

5. ISI Specifications, BIS Specification.
6. ASTM Standards.
Course Code: 16080202040405  Course Category: Elective

Course Title: ENVIRONMENT MANAGEMENT (Elective)

Credit: 02  Contact hour/week=02

Objectives
- To be aware of the holistic ecological approaches to environment.
- To be aware of the environmental problems, hazards and risks
- To understand the aspects of environmental pollution and waste management.
- To be aware of the environmental policies, movements and ethics.

Contents

1. Eco-system – Earth, man and Environment
   - Ecosystems of the world
   - Pathways in ecosystem
   - Problems of sustainability of ecosystems

2. Land and Water Resources of the Earth
   -- Land resources of the earth
   - Land use
   - Water resource of the earth

3. Pollution and Environment with reference to Air, Water, Soil, Noise
   - Sources of pollution
   - Effects of pollution, Air and water bourn diseases, Chemical insecticides and its impact on health,
   Toxic actions of metals and biological substances
   - Remedies to control pollution

4. Waste management
   - Types of waste
   - Method of waste management
   - Water pollution and treatment of waste
   - Solid waste management
   - Air pollution control technology

References


Course Code: 16081202040500                                                                 Course Category: Skill Oriented

Course Title: Assessment of Nutritional Status

Credit: 04                                                                 Contact hour/week=04

Objectives:

The course is designed to:

1. Orient the students with all the important state-of-the-art methodologies applied in nutritional assessment and surveillance of human groups.
2. Develop specific skills to apply the most widely used methods.

Contents

Theory

1. Nutritional assessment as a tool for improving the quality of life of various segments of the population including hospitalized patients.
2. Current methodologies of assessment of nutritional status, their interpretation and comparative applications of the following:
   - Food consumption
   - Anthropometry
   - Clinical and Laboratory
   - Rapid Assessment & PRA
   - Functional indicators such as grip strength, respiratory fitness, Harvard Step test, squatting test.
3. Nutritional Surveillance – Basic concepts, uses and setting up of surveillance systems.
4. Monitoring and Evaluation
Course Title: Assessment of Nutritional Status Practical

Credit: 02

Contact hour/week=04

1. Training in all assessment techniques applicable for individuals and community, including ones used for hospital – based patients
   - Validity and reliability of these techniques.
2. Community based project for assessment of nutritional status of any vulnerable group.
3. A small evaluation study of a nutrition project.

References

9. FAO Nutritional Studies No.4 (1953): Dietary Surveys: Their Technique and Interpretation, FAO.


