

UNIVERSITY GRANTS COMMISSION NET BUREAU

NET SYLLABUS

Subject: Home Science Code No. : 12

UNIT-I: FOOD SCIENCE AND FOOD SERVICE MANAGEMENT

- 1. Food science and nutrition.
- 2. Properties of food physical and chemical properties
- **3.** Quality evaluation of foods- objectives and subjective.
- **4.** Effects of cooking and processing techniques on nutritional components and other physical parameters, food preservation and application.
- 5. Food pigments and additives.
- 6. Food standards, microbiological safety of food, HACCP, food packaging.
- 7. Perspectives of food service-menu planning, food cost analysis.
- 8. New product development nano technology
- **9.** Food service management of institutional level-hospital, educational institutions, social and special institutions
- **10.** Research methods-fundamental issues, concept, need relevance, scope and ethics in research

UNIT-II: NUTRITION AND DIETETICS

- 1. Food groups balanced diet, food pyramid, macro and micro nutrition.
- 2. Nutrients-role of nutrients in the body, nutrient deficiencies and requirements for Indians.
- 3. Public health nutrition
- 4. Nutrition through life span-physiological changes, growth and development from conception to adolescence, nutritional needs and dietary guidelines for adequate nutrition through life cycle, nutrition concerns.
- 5. Community nutrition, sports nutrition, nutrition in emergencies and disasters.

- 6. Nutritional assessment-methods and techniques.
- 7. Nutritional intervention-national nutrition policies and programmes, food and nutrition security.
- 8. Clinical and therapeutic nutrition.
- 9. Diet counseling and management.
- 10. Research methods- research designs, principles and purpose of research

Unit-III: TEXTILES

- 1. Textile terminologies- fibre, yarn, weave, fabric etc., classification of fibers, yarns and weaves, Identification of fibres and weaves.
- 2. Manufacturing process of major natural and manmade fibres, properties and their end uses.
- 3. Different methods of fabric construction-woven, knitted and non woven fabrics, their properties and end uses.
- 4. Textiles finishes-classification, processing and purposes of finishes.
- 5. Dyeing and printing-classification, method of block printing, tie and dye, batik, roller printing, screen printing, discharge, heat transfer printing and digitized printing.
- 6. Traditional textiles of India-embroidered textiles, printed textiles, woven textiles, dyed textiles of various regions in India. Identification on the basis of fibre content, technique, motif, colour and designed.
- 7. Textile Testing and quality control-need of testing, sampling method, techniques of testing fibres, yarn, fabrics and garments. Testing of colour-fastness, shrinkage, pilling and GSM of fabrics.
- 8. Textile and environment-banned dyes, eco-friendly textiles, contamination and effluent treatment, Eco-label and eco marks.
- 9. Recent developments in textiles and apparels- nano textiles, technical textiles, occupational clothing, zero waste designing, up cycling and recycling.
- 10. Research methods-types of research, descriptive, survey, historical, qualitative, quantitative, analytical and action research

UNIT-IV: APPAREL DESIGNING

- 1. Body measurements-procedure, need, figure types and anthropometry.
- 2. Equipments and tools used for manufacturing garments-advancements and attachments used for sewing machine. Types of machines used and their parts.

- 3. Elements and principles of design and its application to apparel. Illustrations and parts of garments.
- 4. Fashion-Terminologies, fashion cycle, fashion theories, fashion adoption, fashion forecasting and factors affecting fashion.
- 5. Pattern making-drafting, draping and flat pattern making techniques, pattern alteration and dart manipulation techniques.
- 6. Apparel manufacturing-terminology used, seams, techniques and machines used, process of fabric to apparel manufacture.
- 7. Apparel Quality testing-Quality standards and specification, Quality parameters and defects of fabrics and garments.
- 8. Care and maintenance of clothing-principles of washing, laundry agents, storage techniques case labels and symbols.
- 9. Selection of clothing for different age groups. Selection of fabrics for different and uses.
- 10. Research methods-hypothesis testing, types and scope

UNIT-V: RESOURCE MANAGEMENT AND CONSUMER ISSUES

- 1. Management-concept, approaches, management of time, energy, money, space, motivating factors, motivation theories, decision making.
- 2. Functions of management-planning, supervision, controlling, organizing, evaluation, family life cycle-stages, availability and use of resources.
- 3. Resources-classification, characteristics, factors affecting use, resource conservation, time management, work simplification techniques, classes of change, fatigue and its management.
- 4. Management of natural resources-land, forest, water, air, water harvesting, municipal solid waste management, concept of sustainable development, SDGs.
- 5. Money management-family income, types, supplementation, budgeting, household accounts, family savings and investment, tax implications.
- 6. Human resource management- functions, need, human resource development-challenges, functions, manpower planning, training need assessment, training methodologies, training evaluation.
- 7. Consumer-definition, role, rights and responsibilities, consumer behavior, consumer problems, education and empowerment.
- 8. Consumer protection- consumer organization, cooperatives, alternative redressal, standardization, standard marks, quality control, buying aids, consumer legislation.
- 9. Entrepreneurship-concept, process, barriers, entrepreneurial motivation, challenges, enterprise setting, project planning and appraisal, enterprise management.
- 10. Research methods-sampling techniques, types of sampling procedures, probability and non probability sampling

UNIT-VI: HOUSING AND INTERIOR DESIGN

- 1. Design fundamentals elements of art, principles of design, principles of composition.
- 2. Colour dimensions of colour, psychological effects of colour, colour schemes, factors affecting use of colour.
- 3. Space planning and design-housing need and important, principles of planning spaces, types of house plans, economy in construction, planning for different income groups.
- 4. Building regulations-norms and standards, zoning, housing for special groups and areas, housing finance.
- 5. Housing and environment- building materials- impact on environment, green rating systems, energy efficiency in buildings, energy auditing, indices of indoor comfort.
- 6. Energy as a resource- conventional and non- conventional sources, renewable /non-renewable energy, energy management, national efforts on energy conservation.
- 7. Product design design thinking process, diffusion and innovation, design communication, ergonomic considerations.
- 8. Ergonomics significance, scope, anthropometry, man, machine, environment relationship, factors affecting physiological cost of work, body mechanics, functional design of work place, time and motion study, energy studies.
- 9. Furniture and furnishing historical perspectives, architectural styles, contemporary tends, wall finishes, window and window treatments.
- 10. Research methods-selection and preparation of tools for data collectionquestionnaire, interview, observation, measuring scales, ranking and measurement, reliability and validity of tools

UNIT-VII: CHILD/HUMAN DEVELOPMENT

- 1. Principles of growth and development, care during pregnancy and pre-natal and neonatal development.
- 2. Theories of human development and behavior.
- 3. Early childhood care and education activities to promote holistic development.
- 4. Influence of family, peers, school, community and culture on personality development.
- 5. Children and persons with special needs, care and support, special education, prevention of disabilities, rehabilitation.
- 6. Children at risk-child labour, street children, children of destitute, orphans, child abuse and trafficking.
- 7. Adolescence and youth: changes, challenges and programs to promote optimal development.
- 8. Adulthood, characteristics, changing roles and responsibilities in early and middle adulthood.
- 9. Aging-physical and psychological changes and care needs.
- 10. Research methods-types of variables and their selection.

UNIT-VIII: FAMILY STUDIES

- 1. Dynamics of marriage and family relationships.
- 2. Family welfare-approaches, programmes and challenges, role in national development.
- 3. Domestic violence, marital disharmony, conflict, resolution of conflict.
- 4. Parent education, positive parenting, community education.
- 5. Family disorganization, single parent families.
- 6. Family studies-family in crisis, family therapy, initiatives for child development.
- 7. Human rights, rights of children, rights of women, status of women, gender roles.
- 8. Guidance and counseling- across life span and for care givers.
- 9. Health and well being across life span development.
- 10. Research methods- data collection and classification, coding, tabulation, inferential and descriptive statistics.

UNIT-IX: COMMUNICATION FOR DEVELOPMENT

- 1. Basics of communication- nature, characteristics, functions, process, models, elements, principles, barriers, perception, persuasion and empathy, types of communication, levels (settings) of communication transactions, process of listening.
- 2. Communication systems and communication theories- human interaction theories, mass communication theories, message design theories, communication systems, culture and communication.
- 3. Concept of development- theories, models, measurement and indicators of development.
- 4. Concept of development- communication models and approaches, diffusion and innovation, mass media, social marketing.
- 5. Role of communication in development- need and importance, development journalism, writing for development-print, radio, television and internet.
- 6. Concerns of development communication- gender, health, environment, sustainability, human rights, population, literacy, rural and tribal development.
- 7. Advocacy and behavior change communication- concept, theories, models, approaches, application and challenges.
- 8. Traditional, modern and new media for development folk forms of songs, art, dance, theatre, puppetry, advertisement, cinema, ICTs for development-community radio, participatory video, social media and mobile phones.
- 9. Organisation/agencies/institutes working for development communication-international/national/state and local.
- 10. Research methods-analysis of data through parametric and non parametric tests.

UNIT-X: EXTENSION MANAGEMENT AND COMMUNITY DEVELOPMENT

- 1. Historical perspectives of extension—genesis of extension education and extension systems in India and other countries, objectives of extension education and extension service, philosophy and principles of extension programme development.
- 2. Programme management- need assessment, situation analysis, planning, organization, implementation, monitoring and evaluation.
- 3. Extension methods and materials- interpersonal, small and large group methods, audiovisual aids-need, importance, planning, classification, preparation and field testing, use and evaluation of audio-visual materials.
- 4. Curriculum development and planning for extension education and development activities, Bloom's taxonomy of educational objectives and learning.
- 5. Non-Formal, adult and lifelong education-historical perspectives, concept, theories, approaches, scope, methods and materials used, challenges of implementation and evaluation, issues to be addressed.
- 6. Training, skill development and capacity building for human resource development-methods of training, entrepreneurship development.
- 7. Community development- perspectives, approaches, community organization, leadership, support structures for community development, Panchyati raj institutions, NGOs and community based organisations.
- 8. People's participation and stakeholders' perspectives, Participatory Learning and Action-methods and techniques.
- 9. Development programmes in India for urban, rural and tribal population groupsprogrammes for nutrition, health, education, wage and self employment, women's development, skill development, sanitation and infrastructure.
- 10. Research methods-scientific report writing, presentation of data, interpretation and discussion.