

**Three/Four Yr. AEDP
(Double Major)
based on NEP-2020
FOOD SCIENCE AND HOSPITALITY
OPERATIONS AND MANAGEMENT**



**(EFFECTIVE FROM SESSION 2026-27)
(BATCH: 2026-2029)**



SAMBALPUR UNIVERSITY
JYOTI-VIHAR, BURLA, SAMBALPUR, ODISHA-768019

COURSE AT A GLANCE (AEDP-UG)

SUBJECT: HOME SCIENCE

ACADEMIC SESSION: **2026-29**

CORE-I(MAJOR-I)

Course Number	Semester	Course Title	Type of MAJOR P-Practical NP-Non-practical	Credit Hour	Maximum Weightage of Marks
MAJOR-1.1	I	FOUNDATION COURSE IN FOOD PRODUCTION	P	4	100
MAJOR-1.2		FOUNDATION COURSE IN FOOD AND BEVERAGES SERVICE	P	4	100
MAJOR-1.3		FOUNDATION COURSE IN FRONT OFFICE-I	P	4	100
MAJOR-1.4		FOUNDATION COURSE IN ACCOMODATION OPERATIONS	P	4	100
MAJOR1.5	II	BASIC COURSE IN FOOD PRODUCTION-II	P	4	100
MAJOR-1.6		FOUNDATION COURSE IN FOOD AND BEVERAGES SERVICE II	P	4	100
MAJOR-1.7		FOUNDATION COURSE IN FRONT OFFICE-II	P	4	100
MAJOR-1.8		FOUNDATION COURSE IN ACCOMODATION OPERATIONS	P	4	100
MAJOR-1.9	III	INDUSTRIAL TRAINING(FOOD PRODUCTION)	NP(TRAINING)	4	100
MAJOR1.10		INDUSTRIAL TRAINING(FOOD AND BEVERAGES SERVICES)	NP TRAINING)	4	100
MAJOR-.11		INDUSTRIAL TRAINING(FRONT OFFICE)	NP TRAINING)	4	100
MAJOR-1.12		INDUSTRIAL TRAINING(ACCOMODATION OPERATIONS)	NP TRAINING)	4	100
MAJOR-1.13	IV	FOOD PRODUCTION OPERATIONS	P	4	100
MAJOR-1.14		FOOD AND BEVERAGES OPERATIONS	P	4	100
MAJOR-1.15		FRONT OFFICE OPERATIONS	P	4	100
	V	INTERNSHIP/INDUSTRIAL TRAINING		20	100
	VI	INTERNSHIP/INDUSTRIAL TRAINING		20	100

CORE-II (MAJOR-II)

Course Number	Semester	Course Title	Type of MAJOR P-Practical NP-Non-practical	Credit Hour	Maximum Weightage of Marks
MAJOR-2.1	I	COMMUNITY HEALTH AND NUTRITION	P	4	100
MAJOR2.3	III	HOUSING NAD ITERIOR DESIGN	P	4	100
MAJOR-2.5	IV	RESEARCH METHODOLOGY	NP	4	100
	VII	HUMAN PHYSIOLOGY			
		RURAL DEVELOPMENT			

CORE-III (MAJOR-II)

Course Number	Semester	Course Title	Type of MAJOR P-Practical NP-Non-practical	Credit Hour	Maximum Weightage of Marks
MAJOR-2.2	II	INTRODUCTION TO TEXTILES	P	4	100
MAJOR2.4	III	ACCOMODATION OPERATIONS	P	4	100
MAJOR-2.6	IV	ENTREPRENEURSHIP DEVELOPMENT	P	4	100

Table: Apprenticeship Embedded Degree Program: Three-year B.Sc. Home Science with Double Major in Food Science and Hospitality Operations and Home Science (Eligibility: Anyone who has completed Higher Secondary or Equivalent belonging to any stream – Arts/ Science/ Commerce/ Vocation/ Diploma in Engineering) **w.e.f. 2026-27**

Semester	Core-I (each Credit 4)	Core-II (each Credit 4)	Core-III (each Credit 4)	MDC (each Credit 3)	AEC (each Credit 4)	SEC (each Credit 3)	VAC (each Credit 3)	Credit total
Semester I	1. Foundation Course in Food Production 2. Foundation Course in Food and Beverage Service 3. Foundation Course in Front Office* 4. Foundation Course in Accommodation Operation*	Community Health and Nutrition		Organization Behaviour			Environmental Studies and Disaster management (Credit 3)	26
Semester II	5. Basic Course in Food Production II 6. Basic Course in Food and Beverage Service II 7. Basic Course in Front Office II* 8. Basic Course in Accommodation Operations II*		Introduction to Textiles		English: Business Communication	Computer Skills for Hotel Professional	Good Citizenship (Credit 3)	30
Semester III	9. Industrial Training (Food Production)* 10. Industrial Training (Food & Beverage Service)* 11. Industrial Training (Front Office)* 12. Industrial Training (Accommodation Operations)* <i>Students will attend an outside establishment for the stated papers in this semester</i>	Housing and Interior Design	Accommodation Operations	Basic Principles of Management				27
Semester IV	13. Food Production Operations 14. Food and Beverage Operations 15. Front Office Operations*	Research Methodology	Entrepreneurship Development		English	Organization of Event Meeting and Conferences		27
Semester V	APPRENTICESHIP (Credit 20)							20
Semester VI	APPRENTICESHIP (Credit 20)							20
Credit Summary	15 x 4 = 60 (+ 40)	3 x 4 = 12	3 x 4 = 12	2 x 3 = 6	4 x 2 = 4	2 x 3 = 6	2 x 3 = 6	150
	Core-I Without Research	Core-II						

Semester	Core-I (each Credit 4)	Core-II (each Credit 4)	Core-III (each Credit 4)	MDC (each Credit 3)	AEC (each Credit 4)	SEC (each Credit 3)	VAC (each Credit 3)	Credit total
Semester VII	16. Therapeutic Nutrition 17. Early Childhood Care and Education 18. Household Economics 19. Rural Development	Human Physiology						
Semester VIII	20. Food Safety and Standards 21. Fabric Care and Management 22. Exceptional Children 23. Home Science Extension Education	Family Resource Management						
	Core-I With Research							
VII	16. Therapeutic Nutrition 17. Early Childhood Care and Education 18. Household Economics 19. Rural Development	Human Physiology						
VIII	20. Food Safety and Standards 21. Research (12 Credit)	Family Resource Management						

*Need Faculty training/ Teacher in Practice

Semester I

Semester	Core-I	Core-II	Core-III	Multi-disciplinary	AEC	SEC	VAC
Semester I	1. Foundation Course in Food Production 2. Foundation Course in Food and Beverage Service 3. Foundation Course in Front Office* 4. Foundation Course in Accommodation Operation*	Community Health and Nutrition		Organization Behaviour			Environmental Studies and Disaster management

CORE I**PAPER I****Foundation Course in Food Production-I****Credits: 4**

Sl. No.	Module Name	Outcomes
1	Introduction to Professional Cooking	<ul style="list-style-type: none">● Explain history and origin of Modern cooking.● Describe the attributes required for kitchen personnel.● Explain the importance of personal hygiene.● Understand the importance of uniform and protective clothing,● Explain the aims and objective of cooking.● Explain different types of cuisines available in the country and across the world.
2	Hierarchy & Layout	<ul style="list-style-type: none">● Elaborate the hierarchy of small, medium and large establishments.● Discuss the roles and responsibilities of a kitchen personnel.● Describe Modern day staffing in hotels.● Elaborate the scope in the tourism and hospitality industry.● Elaborate the basic terms used in the kitchen department.● Explain coordination with other departments.
3	Kitchen Equipment and Appliances	<ul style="list-style-type: none">● Elaborate various appliances, tools and equipment required for preparation for and cooking of different dishes.● Describe the operational and storage procedures of various appliances, tools, equipment and other sharp objects required for cooking● Identify different types of Knives and Sharpening Skills,● Explain cleaning and maintenance of different types of equipment's.● Explain different types of fuels along with their advantages and disadvantages

4	Food Preparation Activities	<ul style="list-style-type: none"> ● Describe various food cooking methods: like <ul style="list-style-type: none"> ○ Boiling ○ Poaching ○ Blanching ○ Steaming ○ Stewing ○ Braising ○ Roasting ○ Grilling ○ Sautéing ○ Frying ○ Baking ○ Microwave Cooking ○ Infrared cooking ○ Sous Vide ○ Air Frying ● Discuss the units of measurements and culinary terms used for various food products ● Elaborate various methods of mixing and preparing the ingredients (like washing, peeling, etc.) for cooking along with their recipes. ● Describe various food preparation techniques (like marinating, chopping, etc.)
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5	Vegetable & Fruit Cookery	<ul style="list-style-type: none"> ● Discuss Classification of vegetables ● Explain the Pigments and colour changes. ● Explain the effects of heat on vegetables. ● Describe cuts of vegetables. ● Discuss Classification of fruits. ● Explain the uses of fruit in cookery.
6	Stocks, Soups and Sauces	<ul style="list-style-type: none"> ● Discuss various types of Stocks and their classification. ● Elaborate Uses of stocks ● Describe the preparation, storage and precautions to be taken for stocks. ● Explain various types of soups and their classification. ● Describe the procedure of Making a good soup. ● Describe various types of Mother Sauces and Derivatives of mother sauces. ● Describe Contemporary & Proprietary Sauces
7	Egg Cookery	<ul style="list-style-type: none"> ● Explain the structure of egg. ● Explain the selection criteria and how to store eggs. ● Classify eggs on the basis of size and source. ● Describe the uses of Eggs.

Foundation Course in Food Production Lab-I

Sl. No.	Module Name	Outcomes
1	PRACTICAL	<ul style="list-style-type: none"> ● Identify different types of Equipment's. ● Use and handle Equipment's. ● Demonstrate different types of Cuts of Vegetables ● Apply appropriate practices to check the quality of different types of ingredients used in the recipe. ● Demonstrate how to perform basic tasks like mixing ingredients, grinding spices, preparing the dough, wrapping food items, etc. ● Demonstrate various cooking and presentation methods. ● Demonstrate type of cuts - julienne, jardinière, macedoines, brunoise, payssane, mignonette, dices, cubes, shred, mirepoix. ● Demonstrate various cooking methods- Frying, Baking, Grilling, Poaching, Stewing, Braising, Boiling, Steaming Sautéing, Poeling, Searing ● Prepare Stocks- White, Brown, Fish & Vegetable ● Prepare Mother Sauces- Béchamel, Espagnole, Velouté, Hollandaise, Mayonnaise and Tomato Sauce ● Prepare Soups- Consommé, Cold and Broth ● Prepare Thick Soups- Puree, Velouté, Cream, Bisque and Chowder ● Demonstrate Egg Cookery- Boiled- Soft & Hard, Fried- Bulls Eyes, Over Easy, Continental and Masala Omelet, Scrambled, Encocotte ● Demonstrate preparation of Salads-Simple and Compound, Garden green, Waldorf salad, Russian salad, Coleslaw, Caesar, Nicoise salad ● Demonstrate Potato Cookery-Fried, Mashed, Roast, Boiled, Sauté, Baked ● Demonstrate Rice & Pasta Cookery- Drainage and Absorption Method, Al- dente, Fried Rice, Boiled Rice, Rice Pilaf, Herb Rice, and Brown Rice

CORE I**PAPER II****Foundation Course in Food & Beverage Service-I****Credits: 4**

Sl. No.	Module/NOS Name, Code, Version	Outcomes
1	Introduction to Food & Beverage Service Industry	<ul style="list-style-type: none">• Elaborate on the introduction of F & B Service industry.• Explain the Growth of Indian Hotels and Restaurants.• Elaborate on the hierarchy of Hotel/ Restaurant of small, medium, and large establishments.• Classify various Catering Operations and Establishments• Elaborate on the scope for Food & Beverage Service personnel.• Describe the attributes required for Food and Beverage Service personnel.• Explain basic terminology used in Food and Beverage Service.• Explain the coordination of Food and Beverage with other departments.
2	Ancillary Services	<ul style="list-style-type: none">• Explain different types of Ancillary sections.• Discuss Still room-functions, Equipment& its control.• Discuss Hotplate, its operations & Hotplate Terminology.• Discuss Pantry and its function.• Discuss Linen store
3	Introduction to Menu	<ul style="list-style-type: none">• Explain the origin of menu.• Elaborate different types of menus.• Explain order taking procedure (KOT, BOT etc)• Describe Menu Planning
4	Table Set Up	<ul style="list-style-type: none">• Discuss different types of table arrangements.• List various types and usage of crockery, cutlery, utensil, glassware, tableware, and service equipment.• Explain the uses of side station.• Explain various types of napkin-folding techniques.• Discuss the importance of proper placement of menu card on the table.• Discuss various styles of services used in different types of food & beverage outlets.• Explain –Waiter service, Self-service, Assisted service etc.

Foundation Course in Food & Beverage Service Lab – I

Sl. No.	Modules	Outcomes
1	PRACTICAL	<ul style="list-style-type: none"> • Demonstrate Restaurant Etiquettes • Demonstrate basic technical skills, interpersonal skills, taking booking, preparation of service, the order of service. • Identify restaurant equipment. • Differentiate between Mis-en-Place, Mise-en-Scene. • Demonstrate Table laying - Simple Covers Ala' Carte & Table D' Hote' • Prepare different types of Napkins folding. • Demonstrate spreading & changing tablecloth. • Demonstrate table layout for Lunch/Dinner. • Arrange Sideboard/ Dummy Waiter. • Carry out a Salver or Tray, Carrying Plates, Glasses and Other Equipment's • Explain Rules for Laying Table - Laying Covers As Per Menus • Write a Food KOT and BOT • Demonstrate handling service gear, clearing an Ashtray, Crumbing, Clearance and Presentation of Bill • Role play for Silver Service, American Service

CORE I PAPER III**Foundation Course in Front Office-I****Credits: 4**

Sl. No.	Modules	Outcomes
1	Introduction To Hospitality Industry	<ul style="list-style-type: none">• Explain famous hotels worldwide.• Elaborate classification on hotel on the basis of: Size, Star Classification, Clientele, Location, Ownership, Independent, Management Contract, Chains & Franchise/ Affiliated, Resorts & Time Share, Bed & Breakfast, Boutique Hotel, Pod Hotels, Ecotels• Elaborate the hierarchy of small, medium and large establishments.• Discuss various service departments in the hotel, like Food & Beverage, Housekeeping, etc.• Elaborate the basic terminology used in the hospitality parlance.• Elaborate the job opportunities in the Tourism and Hospitality Industry• Explain essential attributes of a Front Office Professional
2	Introduction to Accommodations- Front Office and Housekeeping	<ul style="list-style-type: none">• Elaborate on the functions of the front office department.• Discuss the importance of timely reporting for the duty.• Draw the layout of the front office department.• Discuss the importance of wearing a designated uniform.• Explain inter and intra departmental coordination.
3	Prepare for Guests' Arrival	<ul style="list-style-type: none">• Describe various types of rooms, facilities, tariffs (like BAR, Corporate, Contracted, Group, etc.), and meal plans applicable in the Hotel Industry.• Explain different types of room rates.• Elaborate different types of meal plans applicable to hotel.• Discuss various types of guests, such as business, leisure, etc.• Discuss the flow of guests in peak/lean season in the hotels.• Explain the significance of cross-checking occupancy status, room allocation status, arrival and departure timing, guest confirmation, VIP in-house, and events.• Elaborate various tools and office equipment, such as photocopier, printer, card swiping machine, etc. required at the workstation along with their functions.• Describe the different vouchers used in front office (like Petty cash, Visitor's Paid out, etc.)• Explain the importance of taking care of special guest requirement, travel arrangements, and special welcome for VIPs.• Explain the front office guest cycle.• Explain different types of keys and the procedure to collect them.

Foundation Course in Accommodation Operations – I**Credits: 4**

Sl. No.	Modules	Outcomes
1	Introduction To Hospitality Industry	<ul style="list-style-type: none"> • Elaborate the hierarchy of housekeeping department in small, medium and large establishments. • Elaborate the basic terminology used in the hospitality parlance. • Elaborate the job opportunities in the Tourism and Hospitality Industry in accommodation operations. • Explain essential attributes required for Housekeeping Professional
2	Introduction to Housekeeping	<ul style="list-style-type: none"> • Elaborate on the functions of the housekeeping department. • Draw the layout of the housekeeping department. • Explain inter and intra departmental coordination.
4	Role of Housekeeping in Hospitality Operations	<ul style="list-style-type: none"> • Explain Scope and Significance of Housekeeping in Hospitality Industry • Elaborate on Housekeeping Department-Working towards Customer Delight, • Explain the Role and Responsibilities of Housekeeping Department • Describe Housekeeping for Different Institutions- Airlines, Hospitals, Hostels and Corporate, Other Opportunities for Housekeepers
5	Housekeeping Control Desk	<ul style="list-style-type: none"> • Elaborate the role of housekeeping control desk. • Explain Forms, formats, Records and Registers maintained at control desk. • Explain Lost and Found Procedure. • Discuss the importance of paying attention to collect the details about the guest room status/event before cleaning.
6	Cleaning Science	<ul style="list-style-type: none"> • Categorize the types of linen used in housekeeping activities. • List different types of cleaning agents and equipment. • Discuss the significance of using Personal Protective Equipment during the cleaning activities. • Explain different Methods of Cleaning (Manual and Mechanical), • Describe Frequency of Cleaning- Daily, Periodical and Special.

Foundation Course in Accommodation Operations **Lab- I**

Sl. No.	Modules	Outcomes
1	Housekeeping Operations- Practical	<ul style="list-style-type: none"> • Explain Guest Room Supplies and demonstrate their Position in Standard Room, Suite Room, VIP and Single Lady Travelers' Room, Special amenities. • Demonstrate Maids' Trolley Setup, Contents with Placement • Draw Layout of housekeeping pantry • Demonstrate Placement of Equipment and Setup of Pantry • Identify Cleaning Equipment's- Manual and Mechanical • Identify cleaning agents. • Name various cleaning agents brand names. • Demonstrate the procedures for cleaning different areas/surfaces
2	Front office Operations- Practical	<ul style="list-style-type: none"> • Demonstrate Basic Manners, Attributes and Grooming Standards Required for accommodation operations. • Explain Different Types of Calls, Screening Practice. • Identify Equipment & Stationery used in front office and housekeeping. • Demonstrate Telephone Etiquettes and Telephone Handling • Practice on Cases Related to Front office & Other Departmental Communications • Mock Situations – Role – Plays

CORE II

PAPER I

Community Health and Nutrition

Credit 4

Course Outcome:

- The course will enable the students to know about the concept of community health and nutrition and the nutritional problems.
- The students will learn about the assessment of nutritional status and gain experience on the planning of nutrition and health education programs.

Learning Outcome:

- The students will understand the definition, concept and scope of community health and nutrition.
- The students will gain an insight into nutritional problems and their implications.
- The students will learn about the objectives and methods of assessment of nutritional status.
- The students will gain experience about diet planning of Kwashiorkor and Marasmic child and planning and implementation of nutrition education programs.

Unit I: Nutrition Education and Assessment of Nutritional Status

- Definition and concept of community health and nutrition, concept of nutrition education, methods and teaching aids used in nutrition education.
- Meaning, importance and objective of assessment of nutritional status
- Methods of Assessment: Direct (Anthropometry, Biochemical estimation, Clinical examination, and Biophysical examination) and Indirect (Diet survey, Vital Statistics)

Unit II: Nutritional problem and their implications

- Protein Energy Malnutrition- Introduction, prevalence, classification, etiology, clinical features, nutritional requirement, treatment, and prevention.
- Iron Deficiency Anemia (IDA), and Iodine Deficiency Disease (IDD) – Types, prevalence, etiology, symptoms, prevention/treatment and prophylaxis programs.
- Vitamin A Deficiency (VAD) and Fluorosis-Etiology, prevalence, symptoms, prevention/treatment and prophylaxis programs.

Unit III: Nutritional Policies and Programs and Agencies to combat malnutrition

- Nutrition related Policies, Programs: National Nutrition Policy, ICDS, PDS, TPDS, Antyodaya Anna Yojana, National Food for Work Program
- National Agencies: ICAR, ICMR, NIN, NNMB
- International Agencies: WHO, UNICEF, FAO, CARE.

Unit IV: Practical

- Assessment of nutritional status of five children (1-5 years) by anthropometric measurements.
- Interpretation of data based on BMI of ten numbers of adolescents (boys/girls).
- Plan, prepare and calculate diet for kwashiorkor child /marasmus child/anemic adolescent girls.
- Visit to organizations implementing nutrition programs for children and women in your locality and prepare a report.

Text Books:

- Park J.E. and park K. Text book of preventive and social medicine, Publications.
- Park K Park's Text book or Preventive and Social Medicine M/S Banarasidas Bhanot Publisher, Jabalpur, India.
- B. Srilakshmi, Nutrition Science New Age International (CP) Ltd, New Delhi.
- Bamji MS Krishnaswamy K and Brahman GNC (Eds), Text Book of Human Nutrition, Oxford and IBH Publishing Co Pvt. Ltd. New Delhi.

Reference Books:

- Wadhwa A and Sharma S Nutrition in community – A Text Book, Elite Publishing House Pvt. Ltd New Delhi.
- Shukla, P.K., Nutritional problems of India, Prentice-Hall of India New Delhi.
- Biswal, G. and Lenka, C. Textbook of Food, Nutrition and Health.
- ICMR Dietary Guideline for Indian- A Manual National Institute of Nutrition, Indian Council of Medical Research Hyderabad.
- Jelliffe DB, Jelliffe ERP, Zarfar, A and Neumann CG, Community Nutritional Assessment with special reference to less technically developed countries, Oxford University Press Oxford.

E - Resources:

- <http://www.who.int>
- <http://www.fao.org>
- <http://www.nin.res.in>
- <http://www.nutrition.gov>

Model Questions:

1. Write the full form of PEM. (One word/ sentence)
2. Mention any two objectives of nutrition education. (Maximum 50 words)
3. Write short note on vital statistics. (Maximum 250 words)
4. Discuss about the etiology, symptoms, and nutritional management of kwashiorkor. (Maximum 800 words)

Organisational Behaviour**Credit 3****Course Objectives:**

- To learn the basic concepts of Organizational Behaviour and its applications in contemporary organizations
- To understand how individual, groups and structure have impacts on the organizational effectiveness and efficiency.
- To appreciate the theories and models of organizations in the workplace
- To creatively and innovatively engage in solving organizational challenges

Course outcomes (COs)

- To understand the conceptual framework of the discipline of OB and its practical applications in the organizational set up
- To deeply understand the role of individual, groups and structure in achieving organizational goals effectively and efficiently
- To critically evaluate and analyze various theories and models that contributes in the overall understanding of the discipline
- To develop creative and innovative ideas that could positively shape the organizations

Unit I Organizational Behavior:

Learning objectives, Definition & Meaning, Why to study OB, An OB model, New challenges for OB Manager LEARNING: Nature of learning, How learning occurs, Learning, Theories of learning- Classical conditioning ,Operant conditioning, social learning, cognitive learning & OB Case Study Analysis

Unit II PERSONALITY:

Meaning & Definition, Determinants of Personality, Personality Traits, Personality & OB PERCEPTION: Meaning & Definition, Perceptual process, Importance of Perception in OB MOTIVATION: Nature & Importance, Herzberg's Two Factor theory, Maslow's Need Hierarchy theory, Alderfer's ERG theory Case Study Analysis.

Unit III

- COMMUNICATION: Importance, Types, Barriers to communication, Communication as a tool for improving Interpersonal Effectiveness GROUPS IN ORGANISATION: Nature, Types, Why do people join groups, Group Cohesiveness & Group Decision Making-managerial Implications, Effective Team
- Building LEADERSHIP: Leadership & management, Theories of leadership- Trait theory, Behavioural Theory, Contingency Theory, Leadership & Followership, How to be an Effective
- Leader CONFLICT: Nature of Conflict & Conflict Resolution TRANSACTIONAL ANALYSIS: An Introduction to Transactional Analysis Case Study Analysis

Unit IV Organizational Culture:

- Meaning & Definition, Culture & Organisational Effectiveness HUMAN RESOURCE MANAGEMENT: Introduction to HRM, Selection, Orientation, Training & Development, Performance Appraisal, Incentives ORGANISATIONAL CHANGE: Importance of Change, Planned Change & OB Techniques .
- ORGANISATIONAL DEVELOPMENT: Pre-requisites for OD,OD interventions. Text Books Organisation Behaviour- K. Aswathappa- Himalaya Publisher } Essential of Organisation Behaviour –Robins –PHP References } Organisation Theory and behavior - S KGupta& R.Joshi- Kalyani Publisher

VAC Paper I

Environmental Studies & Disaster Management

SEMESTER-I

FULL MARK-100 (Credit-3)

Unit 1: Multidisciplinary nature of environmental studies (8 Period)

Definition, scope and importance

Need for public awareness

Environmental Pollution

Definition

• Cause, effects and control measures of:-

a) Air pollution

b) Water pollution

c) Soil pollution

d) Marine pollution

e) Noise pollution

f) Radiation pollution

Unit 2: Natural Resources: (8 Period)

Renewable and non-renewable resources:

Natural resources and associated problems.

a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people.

b) Water resources : Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

c) Mineral resources : Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

d) Food resources : World food problems, changes caused by agriculture and Overgrazing, effects of modern agriculture, fertilizer-pesticide problems, waterlogging, salinity, case studies.

e) Energy resources : Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies.

Biodiversity:- Introduction-Definition; Biogeographically classification of India

India as a mega diversity nation. Hot spots of biodiversity, Threats to biodiversity.

Endangered and endemic species of India. Conservation of biodiversity. In Situ and Ex-situ

conservation of biodiversity

Unit-3: Disaster Management (8 Period)

1. Disaster Management: Types of disasters (natural and Man-made) and their causes and effect)
2. Vulnerability Assessment and Risk analysis: Vulnerability to various disasters (Flood, Cyclone, Earthquake, Heat waves, Desertification and Lighting)
3. Institutional Framework: Institutional arrangements for disaster management (National Disaster Management Authority (NDMA), State Disaster Management Authority (SDMA), Disaster Management Act, 2005, District Disaster Management Authority (DDMA), National Disaster Response Force(NDRF) and Odisha Disaster Rapid Action Force(ODRAF)
4. Preparedness measures: Disaster Management cycle, Early Warning System, PreDisaster and Post-Disaster Preparedness, strengthening of SDMA and DDMA, Community Preparedness for flood cyclone, heat waves, fire safety, lightening and snake biting. Stakeholders participation, Corporate Social Responsibility (CSR)
5. Survival Skills: Survival skills adopted during and after disaster (Flood, Fire, Earthquake, Cyclone and Lightening), Disaster Management Act-2005, Compensation and Insurance

Unit 4: Social Issues and the Environment (6 Period)

- A. a) Environmental Ethics: Issues and possible solutions.
- b) Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies
- c) Environment Protection Act
- d) Air (Preservation Control of Pollution) Act
- e) Water (Preservation Control of Pollution) Act
- f) Wildlife Protection Act
- g) Forest Conservation Act
- h) Solid waste management Cause, effect and Control Measure of Urban and Industrial waste (Role of each individual in conservation of Natural resources and prevention of pollution)
- B. Human Population and the Environment
- Population Ecology: Individuals, species, population, community
- Human population growth, population control method
- Urbanisation and its effect on society

Unit 5: Field work (15 Periods of 30 hrs)

- Visit to an area to document environmental assets: river/forest/flora/fauna, etc.
- Visit to a local polluted site- Urban/Rural/Industrial/Agricultural
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems-pond, river, Delhi Ridge ,etc.

Semester II

Semester	Core-I	Core-II	Core-III	Multi-disciplinary	AEC	SEC	VAC
Semester II	5. Basic Course in Food Production II 6. Basic Course in Food and Beverage Service II 7. Basic Course in Front Office II* 8. Basic Course in Accommodation Operations II*		Introduction to Textiles		English: Business Communication	Computer Skills for Hotel Professional	Good Citizenship

CORE I**PAPER V****Basic Course in Food Production-II****Credits: 4**

Sl. No.	Modules	Outcomes
1	Introduction to Indian Cuisines	<ul style="list-style-type: none">• Elaborate History of Indian Cuisine• Explain the Influence of Foreign & Religion• Explain the Features and Characteristics – Regional Nature, Geography, Heritage• Explain Indian Masala – Types, Blends & Usage• Describe different Cooking Methods and Techniques
2	Gravies	<ul style="list-style-type: none">• Classify different types of gravies, Derivatives and Regional Gravies• Explain the Guidelines for Gravy Preparation.• Explain the Difference between Sauce and gravy
3	Tandoor Cookery	<ul style="list-style-type: none">• Explain History of Tandoor.• Describe Manufacturing, Installation and Safety Guidelines• Explain different Methods of making Tandoor.• Describe the Materials required for making a tandoor.• Describe Installing /preparation of Tandoor.• Elaborate Equipment required for Tandoori cooking.• Elaborate precautions to be taken while lighting up the fire inside the tandoor.• Describe the techniques for controlling the temperature of a tandoor.• Employ appropriate techniques to prepare tandoor.• Describe the characteristics and types of tandoors.• Explain different types of fuel used in tandoors.• Explain the use and types of marinade used in roasted food products.• Explain the use of Accompaniments for Tandoori dishes.• Elaborate Variety of vegetable and meat cuts required.• Explain the different working temperatures for tandoor products.

Indian Sweets	<ul style="list-style-type: none"> ● Explain History & Classification of Indian Sweets. ● Describe different Ingredients and Equipment's used in preparation of Indian sweets. ● List out the Festive and Regional Delicacies
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Sl. No.	Modules	Outcomes
4	Regional Cuisine – North (Punjab, Jammu & Kashmir, Rajasthan & Awadh)	<ul style="list-style-type: none"> ● Explain Geographical Location, History & Staple Food ● Explain Seasonal Availability of Ingredients ● Elaborate Special Equipment's required to cook north Indian cuisine. ● Explain different Cooking Methods, ● List Festive Delicacies
5	Regional Cuisine – South (Andhra Pradesh, Tamil Nadu, Kerala, Karnataka)	<ul style="list-style-type: none"> ● Explain Geographical Location, History & Staple Food ● Explain Seasonal Availability of Ingredients. ● Elaborate Special Equipment's required to cook South Indian cuisine. ● Explain different Cooking Methods ● List Festive Delicacies
6	Regional Cuisine – West (Maharashtra, Gujarat, Goa)	<ul style="list-style-type: none"> ● Explain Geographical Location, History & Staple Food ● Explain Seasonal Availability of Ingredients. ● Elaborate Special Equipment's required to cook West Indian cuisine. ● Explain different Cooking Methods ● List Festive Delicacies
7	Regional Cuisine – East (Bengal, Bihar, Odisha, Northeast)	<ul style="list-style-type: none"> ● Explain Geographical Location, History & Staple Food ● Explain Seasonal Availability of Ingredients. ● Elaborate Special Equipment's required to cook East India cuisine. ● Explain different Cooking Methods ● List Festive Delicacies

Basic Course in Food Production Lab - II

Sl. No.	Modules	Outcomes
1	PRACTICAL	<ul style="list-style-type: none"> ● Prepare the dough for Indian breads. ● Demonstrate how to prepare various kinds of Indian breads. ● Show how to marinade vegetables/cheese/paneer/meats to roast in the tandoor. ● Demonstrate the techniques to use skewers in tandoor ● Demonstrate 10 Menus based on Indian Starters (Kebabs) ● Regional Cuisine: North and South Indian Regional Cuisine as regarding ingredients used, traditional preparation methods, utensils and accompaniments. <ul style="list-style-type: none"> ○ Goa ○ Kashmir ○ Andhra Pradesh ○ Karnataka ○ Tamil Nadu ○ Bengal ○ Assam ○ Gujarat ○ Punjab ○ Rajasthan etc.,

CORE I**PAPER VI****Basic Course in Food & Beverage Service-II****Credits: 4**

S. No	Modules	Outcomes
1	Interpersonal Skills	<ul style="list-style-type: none">● Explain<ul style="list-style-type: none">○ Dealing With Incidents○ Spillage○ Returned Food○ Lost Property○ Illness○ Alcohol over Consumption○ Recording Incidents○ Customer with Special Needs
2	Types of Meals	<ul style="list-style-type: none">● Explain different types of Meals<ul style="list-style-type: none">○ Breakfast (English, American, Continental, Indian) Lunch, Brunch, Dinner, Supper, Afternoon Tea, High Tea, Low Tea
3	Control System	<ul style="list-style-type: none">● Explain F & B Sales, Necessity and Function of Control System● Describe F & B Control Cycle● Explain Role of Cashier In F & B Controls● List Cash Handling Equipment● Describe Theft Control Procedures - Single K.O.T, Double K. O. T, Triplicate K.O.T & Four Copies K.O.T● Explain Micros in F & B, Its Role and Importance
4	Non-Alcoholic Beverages	<ul style="list-style-type: none">● Classify Non-Alcoholic beverages (Nourishing/ Stimulating / Refreshing)● Explain Tea - Origin & Manufacture, Types of Brands, Preparation & Service● Explain Coffee - Origin & Manufacture, Types of Brands, Preparation● Explain Nourishing - Cocoa & Malted Beverage - Origin & Manufacture, Types Of Brands● Describe Refreshing – Juices, Aerated Drinks, Mixers (Tonic/ Lemonade/ Bitter Lemon), Squashes, Syrups, Mineral Water, Sparkling Water/Soda
5	Room Service	<ul style="list-style-type: none">● Explain Type of Room Service/Centralized/Decentralized/Decentralized Mobile, Room Service Menu● Draw Room Service Hierarchy● Explain Duties of Room Service Order Taker● Describe various Forms and Formats● Explain Trolleys and Tray Set up
6	Kitchen Stewarding	<ul style="list-style-type: none">● Explain Kitchen Stewarding & Organization Structure● Draw Layout of Kitchen Stewarding● Explain Wash Up-Methods Used● Describe Different Kind of Chemical, and Dish Washing Machines● Explain Cleaning Method of Silver/ EPNS, Stainless Steel, Copper, Brass

Basic Course in Food & Beverage Service **Lab - II**

S. No	Modules	Outcomes
1	PRACTICAL	<ul style="list-style-type: none"> ● Demonstrate <ul style="list-style-type: none"> ○ Layout of Breakfast (English, Continental, Indian and American) ○ Room Service Tray and Trolley Setup ○ Procedure For Service of a Meal ○ Taking Guest Reservations ○ Receiving & Seating of Guests ○ Order Taking & Recording ○ Order Processing (passing orders to the kitchen) ○ Sequence of Service ○ Presentation & Encashing the Bill ○ Presenting & Collecting Guest Comment Cards ○ Bidding Farewell to Guests ○ Non-Alcoholic Beverages, Service of Tea, Coffee, Soft Drinks, Squashes, Mineral Water and Specialty Coffee ○ Layout Activities of Pantry ○ Dish Washing Technique ○ Service Etiquettes

CORE I**PAPER VII****Basic Course in Front Office Operations-II****Credits: 4**

S. No	Modules	Outcomes
1	Introduction to Guest Cycle	<ul style="list-style-type: none">• Explain Guest Cycle, Stages of Guest Cycle (Pre-Arrival, Arrival, Occupancy, Departure, Post Departure)
2	Reservation	<ul style="list-style-type: none">• Explain Functions of Reservation, Channels of Reservation• Explain different Sources of Reservation:<ul style="list-style-type: none">○ FIT○ FFIT○ Group○ Travel Agents○ Airlines○ Corporate• Explain different types of Reservation- Guaranteed Reservations & Non-Guaranteed Reservations• Explain different types of Reservation Systems- Central Reservation Systems, Global Distribution Systems, Inter-sell Agencies, Property Direct, Reservations through the Internet, Computerized Reservation System, Future Blocks• Describe Reservation Process<ul style="list-style-type: none">○ In Person○ Telephone○ Email- Group & FIT• Describe Policies & Procedures for Confirmation, Amendment, Cancellation, Overbooking & No Show, Reservation Reports & Histories• Explain various Reservation Considerations: Legal Implications, Waiting Lists, Packages, and Potential Reservation Problems

Basic Course in Front Office Operations- **Lab I**

S. No	Modules	Outcomes
1	PRACTICAL	<p>Demonstrate:</p> <ul style="list-style-type: none"> • Procedure of Taking Reservations – in Person and on Telephones • Handling Guest Enquiries at Reservation • How to Convert inquiries into Valid Reservations • Practice on Room Management System, Reservation, Check in, Practical Situations & Guest Problems. • Amendments in Reservations, Cancellation, Room Availability Charts • Filling Up of Reservation Forms, Making Amendments & Cancellations. • Updating Reservations on the Computer-Actual Computer Lab Work on PMS. • Situations on Basis of Charging. • Practice on Cases Related to Front office & Other Departmental Communications • How to prepare a Tour Itinerary • Telephonic Conversations - Standard Phrases, Manners, Do's & Don'ts • Mock Situations – Role – Plays

CORE I**PAPER VIII****Basic Course in Accommodation Operations- II****Credits: 4**

S. No	Modules	Outcomes
1	Daily Routine Management	<ul style="list-style-type: none">• Explain Guest Floor Etiquettes.• Explain the process of Guest Room Cleaning.• Explain the process of Handling VIP Guest Rooms, Long Staying Guests and Handling DND Rooms.• Describe Turndown Service, Second Service and Handling Guest Special Request• Explain the process of Guestroom Inspections• Explain public area cleaning.
2	Stain Removal and Polishing Activities on the Floors and Surfaces	<ul style="list-style-type: none">• Elaborate various types of surfaces, and appropriate polishing equipment along with the cleaning agents required for each surface• Explain the importance of inspecting the surface after cleaning and polishing• Describe specific methods to clean the surface according to the types of stains• Discuss the procedures of preparing various cleaning solutions and the importance of mixing appropriate amount of specific chemicals to prepare these solutions.• Elaborate the step-by-step cleaning procedures for different surfaces for both soft and stubborn stains• Identify different warning signs to be used• Describe the manual and mechanical procedure of polishing various surfaces• Explain the importance of using sealant and mopping the area after polishing
3	Care and Cleaning of Different Surfaces	<ul style="list-style-type: none">• Explain the care and cleaning of different surfaces: Metals, Glass, Ceramics, Plastic, Rexene, Wood, Carpet, Upholstery, Wall and Floor Finishes

Basic Course in Accommodation Operations - Lab II

S. No	Modules	Outcomes
1	PRACTICAL	<ul style="list-style-type: none">• Demonstrate the Procedure of Taking Reservations – in Person and on Telephones• Demonstrate Handling Guest Enquiries at Reservation• Role Play on Standard Phrases, Manners, Do's & Don'ts• Role Plays on Mock Situations• Demonstrate Guest Room Cleaning: Bed Making, Bedroom Cleaning, Bathroom Cleaning, Turndown Service• Demonstrate Public Area Cleaning- Cleaning of Front Areas and Cleaning of Back of The House• Demonstrate the process of Guest Room Inspection.

Introduction to Textiles**Credit 4****Course Outcome**

- Students will develop an idea about different textile fibers.
- Students will develop the skills to analyse yarn construction techniques.

Learning Outcome:

- The students will learn about classification, usage and production of textile fibres.
- The students will know the manufacturing process and yarn construction techniques.
- The students will gain an insight on techniques of fabric construction, dyeing and printing.
- The students will be enriched about different types of dyeing and printing techniques.

Unit I: Introduction to Textile Fibres:

1. Definition of textile fibres, terminology and classification of textile fibres.
2. Production, Manufacturing Process, Properties and usage of fibres- Natural fibre (cotton, silk and wool).
3. Production, Manufacturing Process, Properties and Usage of Fibres- Man-made fibers (rayon (Viscose), polyester, nylon).

Unit II: Yarn Construction

1. Types and Classification of Yarns- Simple, ply yarns, cord yarns, novelty yarns. twist in yarn: “s” and “z” twist.
2. Staple yarn formation.
3. Woolen and worsted yarn formation process.
4. Chemical spinning (wet, dry, melt)

Unit III: Techniques of Fabric Construction

1. Weaving- Meaning, essential weaving operation, classification of weaves (plain, basket, ribbed, twill, satin, sateen)- structure, properties, usages.
2. Dyeing and Printing Methods – Raw stock dyeing, skein-dyeing, piece dyeing, cross dyeing, tie-die, batik dyeing, printing methods – direct printing, block printing, stencil printing and printing by machine.

Unit IV: Practical

1. Fiber identification: Identification of natural and manmade fibers by following three methods - microscopic test, burning test.
2. Characteristics of Fabric (following standards): Fabric count using pick glass
3. Printing of fabrics using:
 - i. Direct style - Block, stencil and screen
 - ii. Resist style - Tie and dye, batik

4. Weaves- Prepare sample weave on plain, basket, ribbed, twill, satin, sateen.

Text Books:

- Textiles- Fiber to fabric (6th Edition) by Corbman P.B. (1985). Gregg Division /Mc Graw Hill Book Co, US.
- Advanced Drafting and Draping by Manmeet Sodhia. New Delhi.
- Household Textiles & Laundry Work by Durga Deulkar. Atma Ram & Sons, New Delhi.

Reference Books:

- Essentials of Textiles (6th Edition) by Joseph, M.L. Holt, Rinehart and Winston Inc, Florida.
- Textile Science by Vilensky G. CBS Publishers and Distributors, Delhi.
- Understanding Textiles by Tortora, G. Phyllis. Mc Millanm Co. USA.
- Textbook of Fabric Science: Fundamentals to finishing by Sekhri S. (2013). PHI Learning, Delhi.

E-Resources:

- <https://csauk.ac.in/wp-content/uploads/2022/08/Textile-fiber-NEW.pdf>
- <https://gphisar.ac.in/wp-content/uploads/2022/09/TEXTILE-FUNDAMENTALS.pdf>
- <https://nios.ac.in/media/documents/srsec321newE/321-E-Lesson-23.pdf>
- <https://egyankosh.ac.in/bitstream/123456789/92831/1/Unit-8.pdf>

Model Questions:

1. _____ is known as queen of fiber. (One Word)
2. Short note on classification of weaving. (Maximum 50 words)
3. Discuss about the steps of chemical finishing process. (Maximum 250 words)
4. Explain about the cotton fibers and discuss about the preparation of cotton fibers. (Maximum 800 words)

AEC Paper I

English: Business Communication

Credits: 4

S. No	Modules	Outcomes
1.	English Language and Communication: Introduction	<ul style="list-style-type: none">• Communication, its Importance and Factors• Types of Communication• Verbal and Non-verbal Communication• Styles of Communication
2	English Language and Communication: Listening and Speaking	<ul style="list-style-type: none">• Types of Listening• Speaking to communicate effectively• Style of speaking in Various Situations• English Pronunciation
3	English Language and Communication: Reading and Writing	<ul style="list-style-type: none">• Reading methods and techniques.• Reading texts to Understand meaning• Writing Process• Writing short and Long texts
4	English Language and Communication: Grammar and Vocabulary	<ul style="list-style-type: none">• Grammar• Sentence structure• Functions of Language

Reference Book: A Coursebook for ENGLISH COMMUNICATION (Publisher: Orient BlackSwan)

SEC Paper I

Computer Skills for Hotel Professionals

Credits: 3

S. No	Modules	Outcomes
1	Elements of Computer System	<ul style="list-style-type: none">• Describe the meaning of computer• Discuss Classification of Computers• Explain Functions of Computer
2	Hardware Features and Its Uses	<ul style="list-style-type: none">• Describe the Physical components of a computer.• Discuss different generations of computers.• Describe various Storage Types• Explain Input & Output Devices
3	Microsoft Office	<ul style="list-style-type: none">• Explain Introduction to word processing, it's features, formatting documents, paragraph formatting, indents, page formatting, header and footer, bullets and numbering, tabs, tables, formatting the tables, finding and replacing text, mail merging etc.• Discuss MS Word document- entering text, saving, editing and printing the document, formatting a document, special effects, shortcut keys, creating tables.• Discuss MS Excel document- parts of worksheet, creating a spreadsheet, simple formulas, editing data, saving and exiting a worksheet, aligning text, making graphs/charts, printing and page adjustments.• Introduction to MS Power point: PowerPoint, features of MS PowerPoint clipping, slide animation, slide shows, formatting etc.
4	Internet & Email	<ul style="list-style-type: none">• Explain How to search for a webpage.• Describe how to Create an email account• Describe Sending/receiving an email.• Describe about Online banking

VAC Paper I

Good Citizenship

3 Credits

Objectives/Learning Goals of the Course

- Development of good human being and a responsible citizen
- Developing a sense of right and wrong leading to ethically correct behavior.
- Inculcating a positive attitude and a healthy work culture.

Learning Objectives:

- Understanding Basic Values of Indian Constitution.
- Understand how to be a patriot.
- Develop professionalism and understand the ethics relating to various professions.

1. Indian Constitution (1 Credit= 15 hours)

Salient Values of Preamble: Sovereign, Socialist, Secular, Democratic, Republic, Justice, Liberty, Equality and Fraternity

2. Patriotism (1 Credit= 15 hours)

Patriotic Value and ingredients of nation building, Concept of Good Citizenship, Emotional connection with the country, Duties of citizens and Qualities of good citizens

3. Work Ethics (1 Credit= 15 hours)

Punctuality, Cleanliness, Law abidingness, Rational Thinking and Scientific Temper

Semester III

Semester	Core-I	Core-II	Core-III	Multi-disciplinary	AEC	SEC	VAC
Semester III	9. Industrial Training (Food Production)* 10. Industrial Training (Food & Beverage Service)* 11. Industrial Training (Front Office)* 12. Industrial Training (Accommodation Operations)* <i>Students will attend an outside establishment for the stated papers in this semester</i>	Housing and Interior Design	Accommodation Operations	Basic Principles of Management			

INDUSTRIAL TRAINING

S. No	Course Name
1	Industrial training (All four departments)* <ul style="list-style-type: none">- Food Production- Food and Beverage Training- Front Office- Accommodation Operations
2	Training Report
3	Viva -Voce
4	Presentation
5	Logbook & Aptitude Test
6	Attendance

**(each of them will have 4 credits each)*

Housing and Interior Design**Credit 4****Course Outcome:**

- The students will gain knowledge in House Planning for different income levels
- The students will gain insight on elements and principles of design and their household application

Learning Outcome:

- The students will gain understanding of the basic principles of housing and house planning.
- The students will get familiarized with the elements of interior design
- The students will be educated on principles of interior design.
- The students will acquire practical knowledge of House planning for different income groups

Unit I: Housing and Principles of House Planning:

- Meaning, Importance, Types of Housing and Housing terms; Significance, functions, and types of houses; Selection of site and Factors influencing it- Location, Size and Shape, physical features, soil condition, sanitary condition, practical convenience
- Principles of House Planning I - Aspect, Privacy, Grouping, Roominess, Flexibility; Principles of House Planning II – Circulation, Sanitation, Furniture Requirements, Prospect, Economy, Elegance
- Building plans for Family Living – Importance and advantages of planning space, Meaning and Concepts of building plans, Site plan, Floor plan, Elevation, Cross sectional view, Perspective view, Land Scape plan

Unit II: Elements of Design:

- Meaning and Concept of Interior design; Aims of Interior Design-Beauty, Expressiveness and Functionalism
- Elements of Design- Meaning, importance, characteristics of each element and their use in designing - Line, shape, form, space, size, texture and color
- Types of Motifs and arrangement- Motif development and fundamental steps in designing process

Unit III: Principles of Design

- Meaning, nature, types, and significance of design
- Principles of Design- Balance, rhythm, emphasis, proportion, harmony
- Flower Arrangement- History, meaning, types (line, mass, line-mass) and forms (circular, crescent, vertical, horizontal, miniature), tools and equipment required for flower arrangement

Unit IV: Practical

- Draw floor plans of houses for Low/ Middle/ High Income Groups
- Draw different kitchen plans (L-shape, U-shape, Single wall)
- Make a flower arrangement using flowers and foliage (Circular, Crescent, Vertical, Horizontal, Miniature)
- Prepare a poster of different color combinations (Primary, Secondary and Tertiary)

Text Books:

- Vergese, Ogale and Srinivasan, Home Management
- Mallick P., Text book of Home Science

Reference Books:

- Parvez R., Housing and Space Management, Disha International Publishing House
- Renuka S. and Reddy M., Housing and Space Management, ICAR, New Delhi

E- Resources:

<http://ecoursesonline.iasri.res.in/course/view.php?id=653>

<http://ecoursesonline.iasri.res.in/course/view.php?id=213>

<https://www.g-wonlinetextbooks.com/housing-interior-design-2018/>

<https://resources.finalseite.net/images/v1683025189/stmak12mnus/ti8etxsfh1u6ru1jlqu/HousingandInteriorDesign.pdf>

Model Questions:

1. The view of outside features of a house from its windows, door or balcony is known as -----
(One word/sentence).
2. Write the significance and types of houses. (maximum 50 words).
3. Discuss about the concept and aim of interior design. (maximum 250 word)
4. Describe the principles of design in detail. (maximum 800 words)

Accommodation Operations**Credits: 4**

S. No	Module Name	Outcomes
1	Organizing Operations	<ul style="list-style-type: none"> • Explain manning and scheduling of staff • How to do staff Allocation in Housekeeping Department • How to prepare a duty Roaster • Describe the night shift duties and responsibilities
2	Material Planning	<ul style="list-style-type: none"> • Elaborate Material planning for Bed, Bedding, Mattress, Soft Furnishings
3	Emerging Trends in Accommodation Operations	<ul style="list-style-type: none"> • Explain Eco Friendly Cleaning Practices and Involvement of Staff and Guest • List green Amenities • Elaborate latest trends in accommodation operations
4	Linen Room	<ul style="list-style-type: none"> • Explain Functions of the Linen Room • Draw a Layout of linen room. • Name standard sizes of Bed and Bath Linen • How to establish a Par Stock • How to store linen • Explain the process to discard linen
5	Introduction to Laundry	<ul style="list-style-type: none"> • Explain different types of Laundry: Commercial, On Site and Laundromats • Name various laundry equipment and Agents • Elaborate the Laundry Process, Valet Service, Care Labels
6	Safeguarding of Assets	<ul style="list-style-type: none"> • Introduction and Concept, Security within Hotel Guestroom, Nature of Emergencies (Fire protection/ Bomb Threats/ Natural Disasters/ Riots and Civil Disturbances), Loss Prevention, OSHA Regulations and Hazard Control Standards
7	Organizing Operations	<ul style="list-style-type: none"> • Explain manning and scheduling of staff • How to do staff Allocation in Housekeeping Department • How to prepare a duty Roaster <ul style="list-style-type: none"> ○ Describe the night shift duties and responsibilities
8	Material Planning	<ul style="list-style-type: none"> • Elaborate Material planning for Bed, Bedding, Mattress, Soft Furnishings
9	Emerging Trends in Accommodation Operations	<ul style="list-style-type: none"> • Explain Eco Friendly Cleaning Practices and Involvement of Staff and Guest • List green Amenities • Elaborate latest trends in accommodation operations

Accommodation Operations- Lab

S. No.	Module Name	Outcomes
1	Accommodation Operations Practical	<p>Demonstrate:</p> <ul style="list-style-type: none"> • Guest Room Inspection • Public Area Inspection • Handling Checklist • Mini-Bar Management: Issue, Stock Taking, Checking Expiry Date (FIFO) • Cleaning Different Surfaces- Glass, Wood, Brass, Silver, Leather • Handling Guest Complaints • Role Play and Situation Handling Case Study • Model Guest Room Designing • Draw a Layout of Linen and Laundry room • Preparation of First aid Kit and Dealing with Different Emergency Situations

MDC Paper II

Basic Principles of Management

Credits: 3

S. No	Modules	Outcomes
1.	Concept and Process of Human Resource Planning	<ul style="list-style-type: none">● Describe Macro and Micro Level Scenario of Human Resource Planning in Tourism
2	HRD applications in Hotel Industry	<ul style="list-style-type: none">● Discuss the Relevance of HRD in Hotel Industry● Discuss the Function and operations of a Personnel Office● Characteristics and objectives of a personal office● Personnel Managers role and Position of personnel Department in the organization
3.	Hotel Environment and Culture	<ul style="list-style-type: none">● Describe HRD System● Explain the Importance of HRD● Describe HRD in service industry● Explain IPR
4.	Job Evaluation	<ul style="list-style-type: none">● Discuss Methods and Ranking Scope Limitations● Recent Developments in Job Evaluation
5.	Job Analysis and Job Description	<ul style="list-style-type: none">● Discuss Job Analysis – Uses● Describe Job requirements versus personal qualities of Job holder● Explain various Information collection methods● Discuss Designing of Job Description● Describe Uses of Job Description

Semester IV

Semester	Core-I	Core-II	Core-III	Multi-disciplinary	AEC	SEC	VAC
Semester IV	13. Food Production Operations 14. Food and Beverage Operations 15. Front Office Operations*	Research Methodology	Entrepreneurship Development		English	Organization of Event Meeting and Conferences	

CORE I**PAPER XIII****Food Production Operations****Credits: 4**

S. No	Modules	Outcomes
1	European Cuisine	<ul style="list-style-type: none">• Explain History and Regions of European Cuisine (French, German, Italian, Spanish)• Describe Popular ingredients used in French cooking.• Explain Special equipment used in European cuisine.• Write popular European dishes.
2	Asian Cuisine	<ul style="list-style-type: none">• Explain History and Regions of Asian Cuisine (Chinese, Japanese, Korean, Thai & Indonesian)• Describe Commonly used ingredients in Asian cuisine.• Explain Specialty dishes of Asian cuisine.• Describe various Tools and equipment's of Asian cuisine.• Explain Cooking Methods and Techniques used in Asian Cuisine
3	Mediterranean Cuisine	<ul style="list-style-type: none">• Explain History and Regions of Mediterranean Cuisine (Lebanese, Turkish & Greek)• Identify Commonly used ingredients in Mediterranean cuisine.• Elaborate Specialty dishes of Mediterranean cuisine.• Select various Tools and equipment's of Mediterranean cuisine.• Explain Cooking Methods and Techniques used in Mediterranean Cuisine
4	American Cuisine	<ul style="list-style-type: none">• Explain History and Regions of American Cuisine (Mexican, USA & South American)• Describe Commonly used ingredients in American cuisine.• Explain Specialty dishes of American cuisine.• Describe various Tools and equipment's of American cuisine.
5	Herbs & Wine in Cooking	<ul style="list-style-type: none">• Elaborate the Uses of Wine in Cooking• Classify different types of Herbs.• Describe the Uses of Herbs in Cooking

Food Production- Lab

S. No	Modules	Outcomes
1	PRACTICAL	<ul style="list-style-type: none">• Identify different types of equipment used in International Cooking• Prepare various types of Menu:<ul style="list-style-type: none">○ French○ Italian○ Spanish○ German○ Mexican○ Thai○ Japanese○ Korean○ Lebanese○ Greek○ Turkish○ Indonesian

CORE I**PAPER XIV**
Food & Beverage Service Operation**Credits: 4**

S. No	Modules	Outcomes
1	Alcoholic Beverages	<ul style="list-style-type: none">• Introduce & Define Alcoholic beverages.• Classify Fermented Alcoholic beverages• Define and Explain fermentation & distillation
2	Wines	<ul style="list-style-type: none">• Explain different terminologies associated with wine• Name and Explain Wine Producing Countries and Regions• Explain different types of Grapes.• Classify different types of Wines.• Describe the production process of Wines and Types (Table/Still/Natural, Sparkling, Fortified, Aromatized, Fruit Wines and Bitters)• Explain the storage of Wines,• Explain how to service wines,• Explain harmony of Food and Wine
3	World of Wines	<p>Old World Wines</p> <ul style="list-style-type: none">• Explain the principal wine regions• Describe wine Laws• Name Grape Varieties• Explain the process of production and Brand names of France, Germany, Italy, Spain, Portugal <p>New World Wines – Argentina, Australia, Canada, Chile, Colombia, India, Mexico, New Zealand, Peru, South Africa, United States</p>
4	Aperitifs	<ul style="list-style-type: none">• Define Aperitifs• Explain different types of Aperitifs• Explain different types & brand names (Vermouth and Bitters)
5	Beer	<ul style="list-style-type: none">• Define Beer• Explain manufacturing process of beer• Explain different types of Beer• Describe the process of storing beer.• Explain service of bottle Beer, Canned Beer and Draught Beer,• How to take care of Beer• Describe Beer Dispensing System• List Brand Names (National & International)

Food & Beverage Service- Lab

S. No	Modules	Outcomes
1	Food and Beverage Service Practical	Demonstrate: <ul style="list-style-type: none"> • Bar Equipments and Glassware • Bar Setup and Operations • Service of White Wines • Service of Red Wines • Service of Rose Wines • Service of Sparkling Wines • Service of Fortified Wines • Service of Bottled Beer • Service of Draught/Draft Beer • Practice on Menu- matching Wines with Food

CORE I**PAPER XV**
Front Office Operations**Credits: 4**

S. No	Module Name	Outcomes
1	Property Management System	<ul style="list-style-type: none">● Explain:<ul style="list-style-type: none">○ Reservations Management Software, Rooms Management Software, Guest Accounting Management Software, General Management Software, Back Office Interfaces, System Interfaces
2	Registration: Guest Arrival	<ul style="list-style-type: none">● Explain different types of registration (Register & Guest Registration Card)● Explain Registration Procedure and Legal Implication (Foreigners, FIT's, FFIT)● Explain Process of Registration for Groups and FIT's, Procedure for a Fully Automated Front Office,● Explain different methods of Payments
3	Guest Departure Procedure	<ul style="list-style-type: none">● Explain Departure Procedure: FIT, Group, Airline Crew, VIP Guests, Corporate Guests (at Bell Desk, At Reception, at Cashiers Desk)
4	After Guest Departure	<ul style="list-style-type: none">● Explain how to Maintain Guest History & Guest Feedback,● How to Handle Late Charges
5	Front Office Accounting & Credit Control	<ul style="list-style-type: none">● Explain the Front office Accounting Cycle: (Creation, Maintenance and Settlement of Accounts)● Describe different types of Postings● Elaborate Accounts Correction/Amendment, Accounts Allowance, Accounts Transfer● Describe different types of Folio (Non-Guest Folio, Guest Folio, Master Folio, Split Folio)● Explain different types of Voucher: (Correction Voucher, Paid Out Voucher, Cash Voucher, Allowance Voucher, Correction Voucher, Room Rate Change Voucher), City Ledger, Visitor Tabular Ledger● Explain Credit Control at Various Stages of Guest Cycle, Internal Control in Front Office (Front office Cash Sheet, Cash Banks, Petty Cash)
6	Night Auditing	<ul style="list-style-type: none">● Elaborate Duties & Responsibilities of a night auditor● Explain night Auditing Procedure (Manual System, Semi-Automated System, Fully Automated System)● Explain the importance of Night Audit Reports● Describe various Reports by Night Auditor● Read the Flash Reports and the Night Audit
7	Emerging Trends in Front Office	<ul style="list-style-type: none">● Explain Self-Registration, In-Room Check-In, Web Check-In, Mobile and Apps Check-in, Express Check-in● Explain Innovative Check-out Options (In Room Guest Checkout, Express Check-Out, and Self-Check-Out)

Front Office Operations- Lab

S. No	Module Name	Outcomes
1	PRACTICAL	<ul style="list-style-type: none"> • Preparing & Filling Up of Registration Card. • Role Play for Check-In of Different Types of Guests-FIT, Walk-In, VIP, Groups • Role Plays of Check-In of foreigners Using C-Form • Handling Room Keys (Issuing, Receiving, Missing Keys, Computerized Key Cards) • Operating PMS for Registration • Rooming a Guest, Dealing with Change of Room Request. • Handling Guest Enquiries at Reception & Guest Relations • Handling of Keys-Situations Related to Loss of Keys. • Role Play on Situation Handling Like Emergencies, Walking a Guest, Dealing With Overbooking Situations, Complaints • Identification of Vouchers • Use of F.O. Stationary during Arrival & Departure Process. • Reception and Concierge and Cash Counter Activities. • Departure Control Procedure • Express Check Out, Late Check Out • Role Plays of Check-Out Procedure • Mock Situations – Role – Plays • Preparation of Guest History Cards

Research Methodology**Credit 4****Course Outcome:**

- The students will be oriented towards the importance and need of research in Home Science
- The students will be able to identify various issues in Home Science and will carry out research in the pertinent areas for societal development.

Learning Outcome:

- The students will become aware of meaning, purpose and types of research.
- The students will learn about various types of research designs.
- The students will gain an insight on sampling techniques.
- The students will be educated on research process.

Unit I : Research Methodology

1. Research - Meaning, objectives and significance
2. Types of research- Descriptive Vs. Analytical, Applied Vs. Fundamental, Qualitative Vs. Quantitative, Conceptual Vs. Empirical.
3. Criteria of a good research.

Unit-II : Research Design

1. Research design - Meaning, concept, need
2. Features of a good research design.
3. Types of research design-Exploratory, Descriptive, Experimental

Unit III : Sampling Techniques and Data Collection:

1. Sampling – Meaning and Types (Probability and Non-Probability Sampling)
2. Collection of data-Primary and secondary data.
3. Tools and techniques of data collection-observation, interview schedule, questionnaire, case study, Focus Group Discussion (FDG).

Unit IV: The Research Process

1. Formulating the problem, formulation of objectives and hypothesis, preparing the research design, review of literature.
2. Data analysis, measures of central tendency- Mean, median and mode.
3. Data interpretation, bibliography and report writing.

Text Books:

- Kothari C.R. and Garg G., Research Methodology: Methods and Techniques, New Age International Pvt. Ltd, New Delhi.
- Bajpai S.R., Methods of Social Survey and Research, Kitab Ghar.
- Swain A.K. P.C., A text book of Research Methodology.

Reference Books:

- Kumar R., Research Methodology, A step by step Guide for Beginners, Sage Publication, New Delhi.
- Kelinger F.N. and Lee, H. B., Foundations of Behavioral Research, Harcourt College Publishers.
- Best J. W. and Kahn J.V., Research in Education.

E-Resources:

- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=8x0nJkh/R0vHkX1U70Z/CQ>
- <https://ccsuniversity.ac.in/bridge-library/pdf/Research-Methodology-CR-Kothari.pdf>.
- <https://www.euacademic.org/BookUpload/9.pdf>.
- <https://mfs.mkcl.org/images/ebook/Fundamental%20of%20Research%20Methodology%20and%20Statistics%20by%20Yogesh%20Kumar%20Singh.pdf>.

Model Questions:

1. The measures of central tendency are mean, median and ----- (One word).
2. Write down the steps in research process. (Maximum 50 words).
3. Enumerate the features of a good research design. (Maximum 250 words).
4. What is sampling? Discuss about the types of sampling. (Maximum 800 words).

Entrepreneurship Development**Credit 4****Course Outcome:**

- Students will be motivated to become entrepreneurs.
- Students will learn the skills of an entrepreneur.

Learning Outcome:

- Understand the concept related to entrepreneurship.
- Able to learn the characteristics of an entrepreneur.
- Gain knowledge on different resource mobilization for enterprise and SWOT analysis.
- Learn about skills to become women entrepreneur.

Unit I: Entrepreneurship

1. Definition, concept, and objective of entrepreneurship.
2. Scope of entrepreneurship development in India.
3. Types of enterprise – Merits and Demerits.

Unit II: The Entrepreneur

1. Meaning, definition, characteristic of an entrepreneur.
2. Factors Affecting Entrepreneurial Role – Education, awareness, culture, social condition, inhabitant.
3. Profile of an entrepreneur and prospective of entrepreneurial behavior

Unit III: Women Entrepreneur

1. Meaning and definition of women entrepreneur.
2. Characteristics of a women entrepreneur and problems faced by women entrepreneur.
3. Association promoting women entrepreneur- World Association of Women Entrepreneur (WAVE), Women Entrepreneurs Wing NAYE, MSME, Krishi Vigyan Kendra (KVK).

Unit IV: Practical

1. Write a case study report about an women entrepreneur.
2. Prepare a small business plan.
3. Prepare an album of entrepreneurs with their profiles.
4. Write a report on an association promoting women entrepreneur within 1000 words.

Text Books:

- G.L Ray, *Extension Communication and Management*
- V.K Dubey and Indira Bishnoi, *Extension Education and Communication*
- Vasant Desai, *Entrepreneurial Development, Recent Edition*

Reference Books:

- Meredith, G.G et al (1982) *Practice of entrepreneurship*.
- Patel, V.C (1987): *Women Entrepreneurship- Developing New Entrepreneurs*, Ahmedabad, EDIL
- S.S Khanna, *Entrepreneurial Development, Recent edition*.

E-Resources:

<https://www.vedantu.com/commerce/entrepreneurship-development-process>

<https://leverageedu.com/blog/entrepreneurship-development/>

[https://www.shiksha.com/online-courses/articles/entrepreneurship-](https://www.shiksha.com/online-courses/articles/entrepreneurship-development/)

[development/](https://www.shiksha.com/online-courses/articles/entrepreneurship-development/) [https://wadhwanifoundation.org/what-is-entrepreneurship-](https://wadhwanifoundation.org/what-is-entrepreneurship-development/)

[development/](https://wadhwanifoundation.org/what-is-entrepreneurship-development/)

Model Questions:

1. The word entrepreneur has come from_____. (One word)
2. What is entrepreneurship? (Maximum 50 words)
3. Discuss about the scope of entrepreneurship in India? (Maximum 250 words)
4. Define women entrepreneur and discuss the characteristics and problems faced by women entrepreneur? (Maximum 800 words)

AEC Paper II

English: Business Communication

Credits: 4

S. No	Modules	Outcomes
1.	Basic Communication	<ul style="list-style-type: none">● Explain:<ul style="list-style-type: none">○ Structures in present and present continuous tense○ Structures in past & past continuous tense○ Structure in present perfect & present perfect continuous tense○ Structures in future tense○ Modals: helping verbs○ Prepositions○ Idioms● Practice speech on a given topic.● Practice Extempore speech
2	Communication	<ul style="list-style-type: none">● Describe communication.● Describe the Process of communication.● Discuss the Importance of communication● Explain various Types of communication.● Demonstrate Useful Phrases for Everyday Use● Explain the technique of Asking Questions
3	Hotel English	<ul style="list-style-type: none">● Describe the Essential qualities of a good speaker.● Discuss Speech improvement- pronunciation.● Explain the importance of Stress in speech.● Describe Intonation and modulation.● Describe Common phonetics- difficulties

SEC Paper II

Organization of Event, Meetings and Conferences

Credits: 3

S. No	Modules	Outcomes
1	Introduction Corresponding	<ul style="list-style-type: none">• Describe the Tourism and Hospitality Industry and its sub-sectors• Discuss the job role and job opportunity for a Meeting, Conference and Event Planner in the Tourism and Hospitality Industry• Elaborate the basic terminology used in the Tour Packaging
2	Perform the Planning Activities for the Event, Meeting or Conference	<ul style="list-style-type: none">• Elaborate the standard procedures for organizing events, meetings and conference management• Elaborate the standard regulatory compliances at venues for events, meeting and conferences• Discuss the types of events, like theme based, traditional events etc.• Discuss the process of event management as well as its concept and designing procedure• Explain the process of client requirement analysis and defining the scope of work for the event, meeting or conference• Elaborate the procedure of preparing the event proposal• Discuss various types of venues depending on the events, meetings and conference and the procedure of selecting appropriate venue• Describe the inspection methods of facilities at the venue• State the importance of informing access and restriction applicable for selected venue• Elaborate the vendor selection and management procedures• Discuss various types of layout plan for the venue

Entrepreneurship Development**Credits: 4**

S. No	Modules	Outcomes
1.	Entrepreneurship	<ul style="list-style-type: none"> ● Explain the Concept of Entrepreneurship ● Define Entrepreneurship Meaning ● Describe different types of Entrepreneurship ● Elaborate the Qualities of an Entrepreneur ● Classify Entrepreneurs ● Explain Factors influencing Entrepreneurship ● What are the Functions of Entrepreneurs
2	Entrepreneurship in India	<ul style="list-style-type: none"> ● Explain Start-up Process (Project Identification, Selection, Formulation, Evaluation & Feasibility analysis) ● Elaborate Institutional Support- Introduction, Supporting Agencies of Government, Nature of Support, ● Central & State Government Agencies ● Different Schemes ● Legal Issues- The Legal Environment, Forms of Organization, Approval for New Ventures, Tax and Duties Payable, Intellectual Right and Franchising
4	Finances and Raising Capital for New Ventures	<ul style="list-style-type: none"> ● Elaborate various types of Capital Available for New Venture Capital ● Venture Creation-Structure of the Fund, Professional Involved, Compensation and Concept, Sources and Securing Debt Finance, Financing an Ongoing Venture, What Lenders and Investor Look for?
5	Entrepreneurial Development Programmes (EDP)	<ul style="list-style-type: none"> ● Explain the Role of Government in Organizing EDPS, Critical Evaluation ● Economic Development and Enterprise Growth ● Strategic Approaches in Changing Economics ● Scenario for Small Scale Entrepreneur – MSME, NSIC, Franchising and Dealership ● Development of Women Entrepreneurship
6	E- Business	<ul style="list-style-type: none"> ● Describe E-Business ● Domain Name & Website-Finding Designer, Choosing Designer, Settling on a Design & Updates, The Contract ● Social Network-tracking social media ● E- Commerce (Shopping Chart, Auction Programmes, Payment Mechanism & Shipping) ● Hosting (Selection of the Right Host, Storefront Solution, Building Traffic, Search Engine Optimization, Pay per Click Search, Banner, links and Affiliates) ● Emails for Communication

Semester V & Semester VI

FIFTH and SIXTH SEMESTER

COURSE TITLE:	Apprenticeship Training (40-45 Weeks)
COURSE*	
OBJECTIVES:	The objective of apprenticeship training is to provide students with the feel of the actual working environment and to gain practical knowledge and skills, which in turn will motivate, develop and build their confidence. Apprenticeship training is also expected to provide the students the basis to identify their key operational areas of interest.

Discipline Core:

*The student has an option to select the Specialized Training from any one of the Four.

BHM-501 – Food Production

BHM-502 – Food & Beverage Service

BHM-503 – Front Office

BHM-504 – Housekeeping

Sl. No.	Title	Marks	Credits	Total	Remarks
BHM-501 (Apprenticeship Training)	Food Production				
1	Specialization Field	400	8	400	
2	Appraisal Form	100	6	100	
3	Presentation	100	2	100	
4	Log Book & Aptitude Test	100	2	100	
5	Attendance	50	2	50	
	Total	750	20	750	
BHM-502 (Apprenticeship Training)	Food & Beverage Service				
1	Specialization Field	400	8	400	
2	Appraisal Form	100	6	100	
3	Presentation	100	2	100	
4	Log Book & Aptitude Test	100	2	100	
5	Attendance	50	2	50	
	Total	750	20	750	
BHM-503 (Apprenticeship Training)	Front Office				
1	Specialization Field	400	8	400	
2	Appraisal Form	100	6	100	
3	Presentation	100	2	100	
4	Logbook & Aptitude Test	100	2	100	
5	Attendance	50	2	50	
	Total	750	20	750	
BHM-504 (Apprenticeship Training)	Housekeeping				
1	Specialization Field	400	8	400	
2	Appraisal Form	100	6	100	
3	Presentation	100	2	100	
4	Logbook & Aptitude Test	100	2	100	
5	Attendance	50	2	50	
	Total	750	20	750	

SIXTH SEMESTER

Sl. No.	Title	Marks	Credits	Total	Remarks
BHM-601 (Apprenticeship Training)	Food Production				
1	Specialization Field	400	8	400	
2	Appraisal Form	100	6	100	
3	Presentation	100	2	100	
4	Log Book & Aptitude Test	100	2	100	
5	Attendance	50	2	50	
	Total	750	20	750	
BHM-602 (Apprenticeship Training)	Food & Beverage Service				
1	Specialization Field	400	8	400	
2	Appraisal Form	100	6	100	
3	Presentation	100	2	100	
4	Log Book & Aptitude Test	100	2	100	
5	Attendance	50	2	50	
	Total	750	20	750	
BHM-603 (Apprenticeship Training)	Front Office				
1	Specialization Field	400	8	400	
2	Appraisal Form	100	6	100	
3	Presentation	100	2	100	
4	Logbook & Aptitude Test	100	2	100	
5	Attendance	50	2	50	
	Total	750	20	750	
BHM-604 (Apprenticeship Training)	Housekeeping				
1	Specialization Field	400	8	400	
2	Appraisal Form	100	6	100	
3	Presentation	100	2	100	
4	Logbook & Aptitude Test	100	2	100	
5	Attendance	50	2	50	
	Total	750	20	750	

COURSE TITLE:	Apprenticeship Training (40-45 Weeks)
COURSE*	
OBJECTIVES:	<p>The objective of apprenticeship training is to provide students with the feel of the actual working environment and to gain practical knowledge and skills, which in turn will motivate, develop and build their confidence.</p> <p>Apprenticeship training is also expected to provide the students the basis to identify their key operational areas of interest.</p>

Annexure 1: Tools and Equipment

List of Tools and Equipment

Specify the Batch size, if required: 30

The tools and equipment required are:

S.No	Equipment Name	Minimum No.of Equipment required (per batch pf 30 trainers)
1	WEIGHING SCALE	2
2	Rotary Cake Stand	2
3	Steel Turner	4
4	Steel Skimmer	4
5	Pie Mould (Detachable Base)	1
6	Tartlet Mould	2
7	Muffins Mould (Aluminium)	2
8	Slicer	2
9	Piping Bags (With 5 Nozzels)	2
10	Sharpening Steel	2
11	Pallet Knife	5
12	Turning Knife	6
13	Veg. Knife	30
14	Chef Knife (Thick Blade)	30
15	Chef Knife	30
16	Iron Work	2
17	Steel Omelete Pan	2
18	Steel Saute Pan	3
19	Steel Sauce Pan (2Ltr)	3
20	Steel Stock Pot (25 Ltr)	1
21	Steel Stock Pot (7 Ltr)	2
22	Steel Stock Pot (4 Ltr)	2

23	Fly Killer	2
24	Exhaust & Fresh Air Fans	4
25	Mixer / Grinder	2
26	Dough Kneader	2
27	Cease Fire / Fire Extinguisher 5Kgs.	3
28	Refrigerators	3
29	Sink With Attached Taps	5
30	Baking Tray	4
31	SS Storage Tray	4
32	SS KATORIS	36
33	Plastic Crates	2
34	Work Station	10
35	Tandoor	1
36	Kitchen Rack	2
37	LPG Cylinders	6
38	Oven	2
39	Pizza Cutter	2
40	Steel Rice Colander	2
41	Parat (Large)	1
42	Caramel Custard Mould	2
43	Tandoor Seekhs	6
44	Steel Strainer	2
45	Steel Ladle	4
46	Deep Fat Fryer	2
47	MASALA BOX- ROUND SS	5
48	Kitchen Work Tables	5

FOOD & BEVERAGE SERVICE

Equipment Name	Minimum number of Equipment required (per batch of 30 trainees)
Soup Bowl	12
Cereal Bowl	6
Water Jug	6
Dessert Plate 9"	12
Service Platter 1 Port 10 "	6
Pasta Plate 11 "	6
Table Service Fork	6
Service Bowl 1 Port 6 "	6
Entree Dish Round With Lid (1 Portion)	2
Pilsner	6
Service Platter 2 Port 12 "	6
Storage Cabinet	1
Table Napkins	36
Tom Collins	12
Ash Tray	4
Hi Ball	12
Chutney Bowl Small	12
Tea Strainer	3
Dessert (AP) Spoon	12
Dinner Plate 11"	12
Dessert Knife	12
Decanter Small	6
Wine Glass	12
Decanter Large	6
Bar Counter (Front And Back Bar) Optional	1
Tea Cup	12

Rectangular Service Tray	10
POS/ Computer Optional	1
Soup Bowl 4.5" Chinese	12
Oval Platter	1
Tables	3
Soup Spoon Chinese	12
Tea Set	1
Tooth Pick H Older	2
Hostess Desk Optional	1
Dinning Chairs	12
B&B Plate	12
Salt And Pepper Set	4
Straw Holder	2
Finger Bowl Large With Under Liner	6
Table Cloths	6
Entree Dish Round With Lid (2 Portion)	1
Round Service Tray	10
Service Bowl 2 Port 7 "	6
Table Service Spoon	6
Tea Spoon	12
Side Station	1
Tea Saucer	12
Dessert (A.P) Fork	12
Soup Spoon	12
Napkin Holder	2
Sugar Sachet Holder	2

HOUSEKEEPING LAB

S.No	Equipment Name	Minimum No.of Equipment required (per batch pf 30 trainers)
1	Cleaning Agents	5
2	Brooms & Mops	4
3	Mop Wringer Trolley	2
4	Chamber Maid Trolley	1
5	Vacuum Cleaner	1
6	Different Cleaning Brushes	6

(A model room set-up) Optional

S.No	Equipment Name	Minimum No.of Equipment required (per batch pf 30 trainers)
1	Luggage Rack	1
2	Tea Cups Or Coffee Mugs	6
3	Double Bed Sheet	6
4	Painting	2
5	Heavy Curtain	1
6	Double Bed	1
7	Pillows	4
8	Mini Fridge	1
9	Telephone	2
10	Dressing Table	1
11	Single Sofa Chair	1
12	Television	1
13	Table Lamp	1
14	Sheer Curtain	1
15	Wardrobe	1
16	Cushions For Sofa	4
17	WC In Toilet	1
18	Shelf	1
19	Bath Mat	3

20	Shower Curtain	1
21	Hand Towel	6
22	Shower Cubicle	1
23	Bed Cover	2
24	Rock Glass	6
25	Study Chair	1
26	Coffee Table	1
27	Hi Ball Glass	6
28	Bath Towel	6
29	Wash Basin in The Toilet	1
30	Towel Rack	1
31	Pedestal Lamp	1
32	Pillow Covers	6
33	Thermos Flask	1
34	Door Bell	1

Front Office Lab

S.No	Equipment Name	Minimum No. of Equipment required (per batch pf 30 trainers)
1	Different Maps	4
2	Telephone	6
3	Front Office Counter	1
4	Wall Clock- Different time zone	4
5	Register And Log Books	4
6	Different forms and formats	As per number of students

Semester VII

Therapeutic Nutrition

Course Outcome:

- The students will gain knowledge on therapeutic nutrition.
- The students will get aware about nutritional related diseases.

Learning Outcome:

- The students will gain basic concept of diet therapy and types of therapeutic diets.
- The students will be able to learn the nutritional management of various diseases like diabetes mellitus, cardio vascular diseases, infections, and fever.
- The students will be able to learn the nutritional management of obesity, underweight, gastro-intestinal and liver diseases.
- The students will gain experience about the planning of diet in diseases conditions.

Unit I: Diet Therapy

1. Diet Therapy- Meaning of diet therapy, meaning and purpose of therapeutic diet, factors to be considered in modification of normal diet into therapeutic diet.
2. Types of Therapeutic Diet- Clear fluid, full fluid, soft, regular normal diet.
3. Dietary supplements- Meaning, significance and types of dietary supplements.

Unit II: Diet in Fever, Cardiovascular Disease and Diabetes Mellitus

1. Diet in Febrile Condition (TB and Typhoid)- Causes, types, and general dietary considerations.
2. Diet in Cardiovascular Disease- Prevalence, clinical effects, risk factors, role of fat in the development of atherosclerosis, dietary management.
 - (i) Hypertension- Meaning, causes, types, symptoms, principles of diet, dietary management.
3. Diet in Diabetes Mellitus- Prevalence, types, WHO etiological classification, causes, symptoms, diagnosis, complications, and dietary management.

Unit III: Diet in Obesity and Underweight, Gastrointestinal Diseases and Diseases of liver

1. Diet in Obesity- Meaning, causes, assessment, types, treatment, complications, dietary management, weight management guidelines.
2. Diet in Gastrointestinal Diseases- Peptic Ulcer: Meaning, causes, symptoms and clinical findings, dietary management
 - i. Constipation: Meaning, types, dietary considerations.
3. Diet in Disease of Liver-Infective Hepatitis: Meaning, symptoms, dietary management.
 - i. Cirrhosis of liver: Meaning, causes, symptoms clinical findings and dietary management.

Unit IV: Practical

1. Prepare therapeutic diets- clear fluid, full fluid, soft diet.
2. Plan a day's menu, prepare, and serve for diabetes mellitus and hypertension.
3. Plan a day's menu, prepare, and serve for obesity and peptic ulcer.
4. Plan a day's menu, prepare, and serve for infective hepatitis and cirrhosis.

Text Books:

- Shubhangini. A. Joshi; *Nutrition and Dietetics*, McGraw Hill Education India)Private Limited.
- Srilakshmi. B; *Dietetics*, New Age International (p) Limited, publishers.
- Swaminathan. M; *Advanced Text-Book on Food and Nutrition*, Volume 1 and 2, The Bangalore printing and publishing co., LTD.
- Begum. M. R, *A Textbook of Food, Nutrition & Dietetics*, Sterling publications Pvt. Ltd.

Reference Books:

- Khanna, K. Gupta S, Seth R, Passi, S.J. Mahan, R. Puri, *Text book of Nutrition and Dietetics* Phoenix Publishing House Pvt Ltd.
- Mahan L K and Escott Stump S *Krause's food & Nutrition Therapy*, Saunders Elsevier.
- Lenka, C. *Guidelines for Planning Therapeutic Diets*. AkiNik Publications.
- ICMR, *Nutritive value of Indian Foods*. National Institute of Nutrition, Indian Council of Medical Research Hyderabad
- Michael. J. Gibney et al; *clinical nutrition* Blackwell science

E –Resources:

<http://www.who.int>

<http://www.nutrition.gov>

<http://egyankosh.ac.in>

<http://ecourses.icar.gov.in>

Model Questions:

1. Define Dietary Supplements of therapeutic diet. **(One word/ sentence)**
2. What do you mean by hypertension? **(maximum 50 words)**
3. Give the (WHO) classification of diabetes mellitus. **(maximum 250 words)**
4. Describe the causes, symptoms, and dietary management of liver cirrhosis. **(Maximum 800 words)**

Early Childhood Care and Education

Course Outcome:

- Students will be able to focus on career opportunities in early childhood care education.
- Students will understand the relevance of early childhood care for constructive future citizen.

Learning Outcome

- The students will be able to understand the importance of early childhood years and programs for early childhood development.
- The students will learn about the contributions of educational philosophers towards ECCE.
- The students will gain knowledge on physical setup, curriculum and personnel required for preschool
- The students will be able to gain practical experience on preschool management.

Unit I: Early Childhood Care

1. Early Childhood Care—Meaning, importance and scope of early childhood care in India.
2. Child Rearing Practices—Meaning, significance, aspects and factor affecting child rearing practices.
3. Children's Environment—Meaning, importance and role of parents, family and community in creating stimulating environment for children.

Unit II: Early Childhood Care and Education in India:

1. Meaning, significance and objectives of early childhood care and education in India.
2. Contributions of educational philosophers- Global and Indian perspective: views of educationists and philosophers: Pestalozzi, John Dewey and Maria Montessori, Sri Aurobindo, Rabindranath Tagore, Mahatma Gandhi.
3. Provisions and Policies for Child Care and Development in India- Constitutional provisions, legislative provisions and national policy for children-2013, new education policy-2020.

Unit III: Physical Setup of Preschool:

1. Pre-school building, essential of good building, plan for a pre-school building, and selection of play equipment.
2. Curriculum for pre-school- Types, factors, determining, the effectiveness of the curriculum.
3. Pre-school staff, personnel, pre-school records, and reports.

Unit IV: Practical

1. Visit to any pre-school and prepare a report on physical set-up curriculum and developmental activities
2. Prepare low-cost play equipment suitable for preschool.
3. Prepare power point presentation on any one preschool philosopher.
4. Conduct a case study on child-rearing practices.

Text Books:

- *Development, care, and education of preschool children* by Aparajita Chowdhury and Rita Chowdhury by Discovery Publication House Pvt. Ltd, New Delhi.
- *Early childhood Care and Education*, Mohanty, J and Mohanty, B, Deep & Depppublication, New Delhi.
- *A textbook on child development*, Raajmahal P. Devadas, N. Jaya, published by Rajilberi for Macmillan India. Ltd.
- *Kaul, V. Early childhood education program. National Council of Educational Research and Training*, New Delhi.

Reference Books:

- *Agarwal, S.P. and Usmani, M M. Children's education in India: from Vedic times to twenty-first century* New Delhi: Shipra.
- *Canning, N. Play, and practice in the early years: Foundation stage*. New Delhi: Sage.
- *Durlak, J.A. School-based prevention programs for children and adolescents*. N.Y.: Sage.
- *Fleer, M. Early learning and development: Cultural-historical concepts in play*. Cambridge: Cambridge University Press.

E-Resources:

https://wcd.nic.in/sites/default/files/national_ecce_curr_framework_final

https://www.education.gov.in/shikshakparv/docs/background_note_ECCE.pdf

https://ddceutkal.ac.in/Syllabus/MA_Education/Paper_19.pdf

Model Questions:

1. Define Early Childhood care? **(Answer in one Sentence)**
2. Outline the significance of child rearing practices? **(Answer in maximum 50 words)**
3. Discuss about the contribution of Indian Philosophers on Early childhood care education?
(Answer in maximum 250 words)
4. Explain about the provisions and policies for early childhood care education? **(Answer maximum 800 words)**

Household Economics

Course Outcome:

- The students will be educated on concepts and importance of Household Economics.
- The students will learn about the national economic environment and constraints of economic growth.

Learning Outcome:

- The students will gain an insight on household economics.
- The students will learn about the economics theory and environment.
- The students will be oriented on standard of living, money, and banking.
- The students will understand the Indian economic environment and constraints of economic growth.

Unit I : Introduction to Household Economics:

1. Meaning, concept and scope of household economics.
2. Human wants – Definition, characteristics and classification.
3. Utility and Demand -Law of diminishing marginal utility, law of equi-marginal utility, law of demand, elasticity of demand and Engel's law of consumption.

Unit II: Standard of Living, Money and Banking:

1. Standard of Living- Significance, standard of life vs. standard of living, factors determining standard of living, causes of low standard of living.
2. Money- Meaning, functions and types of money.
3. Banking- Concept, functions and types (central and commercial banks).

Unit III: National Economic Environment:

1. Constraints of Economic Growth- population growth, income distribution, poverty, unemployment, migration, food security.
2. Changing Nature of Business World- E-Commerce and E-Business.
3. Developmental Programmes of Government of India- Pradhan Mantri Jan Dhan Yojana, Prime Minister's Employment Generation Programme, Start Up India Scheme: Objectives and achievement.

Unit IV: Practical

1. Prepare a report on advantages and disadvantages of purchasing clothing items through online

shopping (Price, Product quality, Size, Return facility, Durability)

2. Prepare a poster based on Engel's Law of Consumption
3. Prepare a chart on key categories of Public Expenditure
4. Prepare one album on newspaper cuttings on constraints of economic growth

Textbooks:

- Shukul M. and Gandotra V., *Home Management and Public Finance*, Dominant Publishers, and Distributors
- Ahuja H.L., *Modern Micro Economics*. Sultan Chand & sons
- Dhingra I. C. and Garg V.K., *Introductory Economic Theory*. Sultan Chand & Sons
- Mishra and Puri, *Recent edition, Indian Economy*, Himalaya Publishing House.

Reference Books:

- Sundaram K.P.M., *Introduction to Economics*. Ratan Prakashan
- Mithani D.M., *2010 New Edition, Macro-Economics*. Himalaya Publishing House

E-Resources:

<http://ecoursesonline.iasri.res.in/course/view.php?id=661>

<http://people.soc.cornell.edu/swedberg/2011%20The%20Household%20Economy.pdf>

<https://www.wider.unu.edu/sites/default/files/wp159.pdf>.

Model Questions:

1. Human are unlimited. **(One word)**.
2. Write the law of marginal utility. **(Maximum 50 words)**
3. Discuss about the meaning, functions, and types of money. **(Maximum 250 word)**
4. Describe the constraints of economic growth. **(Maximum 800 words)**

Rural Development

Course Outcome:

- Students will develop understanding on the importance of rural development.
- Students will understand the functions of rural institutions.

Learning Outcome:

- Understand the concept of rural sociology.
- Learn about the role of rural institutions.
- Gain knowledge on planning of the rural extension programmes.
- Students will gain practical experience on rural environment.

Unit I: Introduction to Rural Sociology

1. Rural Sociology – Meaning, scope, importance
2. Characteristics of rural society, rural and urban difference
3. Rural Social Groups- Primary and secondary, reference groups, cultural interest groups, temporary and permanent groups

Unit II: Rural Institutions:

1. Informal Institutions- Family, class, caste
2. Formal Rural Institutions-Village school, gram panchayat, service co-operatives, mahila mandal, youth clubs
3. Village Leaders- Identification of leaders, leadership phenomena, development of leaders

Unit III: Programme Planning and Rural Environment :

1. Meaning, Programme Planning Process –Collect facts, analyze situation, identify problems, decide on the objectives, develop plan of work, execute plan, evaluation of progress.
2. Importance of extension programme and characteristics of a good programme.
3. Environment – Natural, artificial, social, psycho-social environment.

Unit-IV: Practical

1. Prepare a flip chart/pamphlet/leaflet on rural surroundings.
2. Prepare a script for a folk song/folk play about rural environment.
3. Visit to a co-operative society and prepare a report.
4. Prepare an outline of an awareness programme on health/social/gender.

Text Books:

- *S. V Supe, An Introduction to Extension Education.*

- *O.P Dahama, O.P Bhatnagar, Education and Communication for Development.*

Reference Books:

- *G. L Ray, Extension Communication and Management.*
- *C. Satapathy and Sabita Mishra, Extension Techniques for Rural Management.*
 - *Reddy, Extension education*

E Resources:

<https://egyanagar.osou.ac.in/prog>

<https://www.india.gov.in/download-e-book-ministry-rural-development>

<https://www.ruraluniv.ac.in/facilities?content=eresourc>

Model Questions:

1. Define Rural Sociology? **(one sentence)**
2. Write the importance of Rural sociology? **(Maximum 50 words)**
3. Explain about the role of village school? **(Maximum 250 words)**
4. Discuss about the characteristics of rural society? **(Maximum 800 words)**

Semester VIII

Food Safety and Standards

Course Outcome:

- The student will gain knowledge about food contamination and food borne illnesses.
- The students will get insight on food laws and standards.

Learning Outcome:

- The student will learn about concept of food contamination, food toxicants and safe handling practices.
- The student will understand about different food borne illnesses and food adulteration.
- The student will gain insight into different food laws, national and international food standards. The student will gain experience about detection of food adulterants and food safety standards used in different food products.

Unit -I: Introduction to Food Contamination and Food Safety

- Food contamination: Meaning, definition and concept.
- Food toxicants: Meaning and types
- Food safety: Meaning and safe food handling practices.

Unit -II: Food Borne Illnesses and Food Adulterations

- Food borne illness (Salmonellosis, Staphylococcal poisoning, Perfringenes poisoning, Botulism): Agents, symptoms, and prevention.
- Food adulterants: Meaning and types
- Detection of adulterants in food stuffs

Unit- III: Food Laws and Food Standards

- General principles of food safety, voluntary standards and certification system- Bureau of Indian Standards (BIS), AGMARK.
- Food standardization and regulation agencies (National and International): Central Committee for Food Standards, International Organization for Standardization, Codex Alimentarius, Hazard Analysis Critical Control Point (HACCP).
- Food Evaluation- Meaning, methods of food evaluation (subjective and objective).

Unit-IV: Practical

1. Preparation of checklists for food safety measures for food handlers.
2. Market survey to study the different food safety standards.
3. Detection of adulterants in the following foods: Grains, dals, milk, black pepper, cinnamon, cloves, cumin seeds and honey.
4. Standardization of a food product using sensory evaluation.

Text Books:

- ✓ Shubhangini A. Joshi; *Nutrition and Dietetics*, McGraw Hill Education (India) Private Limited.
- ✓ Srilakshmi. B; *Food Science*, New Age International (p) Limited, publishers.
- ✓ Swaminathan. M; *Advanced Text Book on Food and Nutrition*, Volume 1 and 2, The Bangalore printing and publishing co., LTD.
- ✓ Begum. M. R, *A Textbook of Food, Nutrition & Dietetics*, Sterling publications Pvt. Ltd.

Reference Books:

- ✓ Cynthia A. Roberts. *The Food Safety Information Handbook*. Oryx press.
- ✓ Mahan L K and Escott Stump S. *Krause's Food & Nutrition Therapy*, Saunders Elsevier.
- ✓ Raday, S. *Food Science and Nutrition*, Oxford University Press.
- ✓ Gupta, V. *The Food Safety and Standards Act*.

E -Resources:

- ✓ <http://www.fao.org>
- ✓ <http://www.fssai.govt.in>
- ✓ <http://www.foodsafety.odisha.nic.in>

Model Questions:

1. State any 3 food borne illnesses. **(One sentence)**
2. Define food contamination. **(Maximum 50 words)**
3. Write short notes on staphylococcal food poisoning. **(Maximum 250 words)**
4. Define food toxicant. What are the different types of food toxicants? Mention the safe food handling practices. **(Maximum 800 words)**

Fabric Care and Management

Course Outcome:

- Students will be able gain skill-based orientation in fabric care.
- This course will help the students to become self - reliant.

Learning Outcome:

- The students will learn about importance and types of fabric care.
- The students will know about types of equipment and reagents used in laundry process.
- The students will get an idea on techniques of fabric cleansing techniques.
- The students will gain practical knowledge on household laundry methods.

Unit I: Care of Fabrics

- Meaning, Importance, Types – Permanent care labeling, coverage and exemptions, label permanency and placement, instructions and label labeling, testing and responsibility.
- Consumer Care Guide for Apparel- Home drying, non-machine washing, machine washable, ironing or pressing.
- Care of Fabrics – Brushing and airing, storing, drying.

Unit II: Laundry Equipment's and Reagents

- Laundry Equipment - Sink, boiler, tubs, buckets, enamel bowls and basins, spoons and containers- scrubbing brushes, scrubbing boards, beaters, suction –washer, dryers-dry- cleaning pump, ironing board, charcoal irons, electric iron, flat iron.
- Use of Cleaning Materials and Other Reagents – Soda ash- shikakai, soaps and soap solutions, washing soda, borax rock ammonia.
- Stains and Bleaching Agents –Types, general rules, process of stain removal of egg, grass, nail polish, curry, ball point ink and oxidizing bleaches, hydrogen peroxide and potassium permanganate, sodium hydrosphere.

Unit III: Laundering Methods and Principles

- Methods of Cleansing- Application of friction: (Hand friction, rubbing and scrubbing), application of light pressure (Kneading and squeezing, suction washing).
- Methods of Finishing- Dampening, ironing, pressing steaming, mangling, calendaring.
- Laundering - Laundering of cellulose fabrics, wool, and silk.

Unit IV: Practical

- Prepare a catalogue/booklet on bleaching agents used in cleaning and finishing of fabrics.
- Stain removal (egg, grass, nail polish, curry, ball point ink) from cloth by using stain removal process.
- Prepare an inventory of different laundry equipments.
- Prepare a list of chemicals used for cleansing and laundering of cloths.

Text Books:

- ✓ *Corban P.B, Textiles- Fiber to fabric. Gregg Division /Mc Graw Hill Book Co, US.*
- ✓ *Durga Deulkar, Household Textiles & Laundry Work, Atma Ram & Sons, New Delhi.*
- ✓ *Susheela Dan Tyagi. Fundamentals of Textiles and their Care, Orient Black swan Private Limited.*

Reference Books:

- ✓ *Joseph, M.L. Holt, Rinehart and Winston Inc, Florida.*
- ✓ *Vilensky G Essentials of Textiles by Textile Science, CBS Publishers and Distributors, Delhi.*
- ✓ *Tortora, G. Phyllis. Understanding Textiles by Mc Millanm Co. USA.*
- ✓ *Sekhri S. Textbook of Fabric Science: Fundamentals to finishing by (2013). PHI Learning, Delhi.*
- ✓ *Manmeet Sodhia, Advanced Drafting and Draping.*

E-Resources:

- ✓ <https://csauk.ac.in/wp-content/uploads/2022/08/Textile-fiber-NEW.pdf>
- ✓ <https://nios.ac.in/media/documents/srsec321newE/321-E-Lesson-27.pdf>
- ✓ <https://gphisar.ac.in/wp-content/uploads/2022/09/TEXTILE-FUNDAMENTALS.pdf>
- ✓ <https://blogmedia.testbook.com/blog/wp-content/uploads/2022/04/home-science->

Model Questions:

What is fabric care? **(One sentence)**

Write the importance of Fabric care management? **(Maximum 50 words)**

Discuss about types of fabric care? **(Maximum 250 words)**

Discuss about different types of Laundering methods and principles? **(Maximum 800 words)**

Exceptional Children

Course Outcome:

- Students will be aware about the vulnerable sections of the society and develop attitudinal change.
- Students will be able to identify the talents of gifted children and focus on their talents.

Learning Outcome:

- The students will understand about the exceptional children and their classifications.
- The students will gain an in-depth knowledge on socially handicapped children, emotionally disabled children and orthopedically challenged children.
- The students will gain knowledge about children with speech defects and gifted children.
- The students will be aware of the status and situations of differently abled children and adolescents in India.

Unit I: Introduction to Exceptional Children

- Meaning, definitions, and classifications of exceptional children.
- Gifted Children: Definition, Classification, Educational methods used, Parental awareness and development competency in bringing up these children.
- Children with Sensory Deficits, Deaf and Dumb, Visually Impaired- Definition, causes, teaching methods and rehabilitation of all.

Unit-II: Physical Challenges

- Mentally Challenged Children - Definition, causes, classification, education and rehabilitation.
- Socially Handicapped Children (Juvenile delinquents) - Meaning, causes, behavioral symptoms, preventive measures taken, rehabilitation.
- Orthopedically Challenged Children - Definition, causes, treatment, and rehabilitation.

Unit III: Speech and Emotional disturbed children and Welfare Programme

- Children with Speech Defects - Aphasic child, stammering, stuttering, articulatory defects, remedial measures, and speech therapy.
- Emotionally Disturbed Children – Common behavioral problems of children, Psychosis (Schizophrenia and Autism in children), Neurosis (Phobia, Obsession, and compulsion).
- Welfare programmes and policies for disabled children and adolescents in India.

Unit IV: Practical

1. Identify physically handicapped children (at least five) and prepare a report.
2. Prepare a case profile of an exceptional child (Age, Height, Weight, Physical defect, Problems, preferences, activities)
3. List out the developmental tasks of a physically challenged child.
4. Prepare a list of special materials and equipment required for exceptional child (Gifted/physically/emotional/sensory challenged).

Text Books:

- ✓ Uday Shankar - *Exceptional children*. New Delhi: Sterling publishers.
- ✓ K C Panda - *Exceptional Children*.
- ✓ Mangal, S. K - *Exceptional Children: An Introduction to special education*. New Delhi: Prentice Hall of India.
- ✓ Kar, Chintamani - *Exceptional Children: Their psychology and education*. Sterling publishers Pvt. Ltd.

Reference Books:

- ✓ Hallahan. P, Daniel & Kauffman. M, James. *Exceptional children; introduction to special education*. Prentice-hall International (UK) Limited, London.
- ✓ Chopra, G. *Early detection of disabilities and persons with disabilities in the community*. New Delhi: Engage Publications.
- ✓ Dhawan, M. *Education of Children with Special Needs*. New Delhi: Isha Books.

E-Resources:

- ✓ <https://niepid.nic.in/EXCEPTIONAL%20CHILDREN.pdf>.
- ✓ <https://egyankosh.ac.in/bitstream/123456789/23721/1/Unit-3.pdf>.
- ✓ https://www.sxccal.edu/wp-content/uploads/2023/08/MAEDCR33-Module-2_
- ✓ <https://www.hcpcollege.edu.in/sites/default/files/Exceptional%20children>.
- ✓ <https://www.gadoe.org/Curriculum-Instruction-and-Teaching%20Modules/>

Model Questions:

1. Define Exceptional Child? (**Answer one sentence**)
2. What is the classification of exceptional Children? (**Answer maximum 50 words**)
3. Define sensory deficit child and discuss the teaching methods? (**Answer maximum 250words**)
4. Meaning of gifted children and discuss the classification and parental awareness and development competency in bringing up these children. (**Answer maximum 800 words**)

Home Science Extension Education

Course Outcome:

- To enrich students about relevance of extension education and its application.
- To understand about the application of extension teaching methods for teaching and training purpose Outcome Learning:
- The students will be enriched with the principle and behavioral changes brought about by extension education.
- The students will understand extension education in community development.
- The students will be aware of the methods of teaching in extension education.
- The students will learn about the educative materials preparation of for different training purposes and get experience of various extension organizations.

Unit I: Introduction to Extension Education:

- Definition, needs, objectives and scope of extension education.
- Philosophy and principles of extension education.
- Behavioral changes through extension education.

Unit II: Role of Home Science Extension Education in Community Development:

- Meaning, definition and areas of community development. Home science extension education and its inter- relationship with community development.
- Role & qualities of Home Science extension workers.
- Home Science Extension Programmes- Mission Shakti, MGNREGA, National Mission for empowerment of women, ICDS, Green India Mission (GIM).

Unit III: Teaching Methods in Extension Education:

- Classification of Extension Teaching Methods- Individual, group and mass methods. individual methods: farm and home visits, office calls, telephone calls, personal letters.
- Group Methods- Method demonstration, campaign, puppetry, general meeting result demonstration, group discussion, tours, field trips, lecture, seminar, and workshop, advantages and disadvantages.
- Mass Methods- Leaflets and folders, exhibition, circular letter, radio, television, bulletins, story film show and news articles, advantages & disadvantages.

Unit IV: Practical

- Prepare a leaflet/poster on various issues related women, children and environment.
- Prepare a project report within one thousand words on women/children/environment.
- Prepare a flow chart on the steps of method demonstration by extension worker.
- Visit to Mission Shakti centers/ NGO and prepare a report (Objectives, Functions, Achievements)

Text Books:

- ✓ V. K Dubey, Indira Bishnoi, *Extension Education and Communication*, New Age International Publishers.
- ✓ S. V Supe, *An Introduction to Extension Education*, Oxford and Publishing Co. Pvt.Ltd
- ✓ Nibedita Mishra and Gayatri Biswal, *Text Book of Home Science Extension Education*, Recent Edition.

Reference Books:

- ✓ *Text book of Home Science- Premlata Mallick.*
- ✓ *Education and Communication for Development*, O.P Dahama, O.P. Bhatnagar.

E-Resources:

- ✓ <https://Timesagriculture.Com/Role-Of-Home-Science-Extension-In-Education/>
- ✓ <https://Www.Researchgate.Net/Publication/>
- ✓ <https://Alhafeezcollege.Org/Alfz/Assets/Uploads>
- ✓ <https://Www.Rohtasmahilacollegessm.Ac.In/Wp-Content/Uploads/Sites>
- ✓ <https://Www.Egyankosh.Ac.In/Bitstream/123456789/53665/3/Block-1.Pdf>

Model Questions:

- Q.1- The term extension education is derived from_____ (one word)
- Q.2- What are the qualities of extension worker. (Answer maximum 50 words)
- Q.3- Explain about the method demonstration. (Answer maximum 250 words)
- Q.4- Define extension education and discuss about the principles of extension education.

