KRISHNA UNIVERSITY, MACHILIPATNAM ANDHRA PRADESH, INDIA

Department of Food Science and Technology

Syllabus for Minor Program in

Home Science

Semester – III, IV, V, VI

Under CBCS (Choice Based Credit System)

Approved by Board of Studies

(With effect from 2026-27)

(With Learning Outcomes, Unit-wise Syllabus, References, Model Q.P)

KRISHNA UNIVERSITY, MACHILIPATNAM ANDHRA PRADESH, INDIA

Composition of Board of studies committee

Academic year: 2026-27

S.No	Category	Designation	Name of the faculty	Remarks
1	Educational	Chairperson	Dr. Sk. Beebi	S.R.R. & C.V.R. GDC (A), Vijayawada
2	University Nominee	Member	Dr. L. Suseela	Nominated by Krishna University, MTM.
3	External	Member	Dr. Santhi Sri K.V.	ANU, Guntur
4	Subject expert	Member	Dr. K. Anuradha	Dept. of Food Science and Technology, S.R.R. & C.V.R. GDC (A), Vijayawada
5	Subject expert	Member	Dr. K.N. Varalakshmi	Dept. of Food Science and Technology, SDM, Siddhartha Mahila Kalasala
6	Industrial expert	Member	Smt. Sireesha Rani Rokalla	Manager (Technical), Food corporation of India, Bangalore
7	Student	Member	G. Anil	Dept. of Food Science and Technology S.R.R. & C.V.R. GDC (A), Vijayawada
8	Student	Member	G Rajesh	Dept. of Food Science and Technology S.R.R. & C.V.R. GDC (A), Vijayawada

Minutes of Board of Studies in Home Science for Semester III, IV, V & VI (Effective from 2026-27)

The Board of Studies meeting in the subject of Home Science (Minor) is held on 21-10-2026 at 2.00 PM in the Dept. of Food Science and Technology, S.R.R. & C.V.R. Govt. Degree College (Autonomous) Vijayawada. The following members attended the meeting in online mode and approved the following resolutions:

S. No	Category	Name of the faculty	Position	Signature
1	Education	Dr Sk Beebi	SRR&CVR Govt. Degree College, Vijayawada	
2	University Nominee	Dr. L. Suseela	Nominated by Krishna University, MTM.	
3	External	Dr. Santhi Sri K.V.	ANU, Guntur	
4	Subject expert	Dr. K. Anuradha	Dept. of Food and nutritional sciences, S.R.R. & C.V.R. GDC (A), Vijayawada	
5	Subject expert	Dr. K.N. Varalakshmi	Dept. of Food and Nutritional Sciences, SDM, Siddhartha Mahila Kalasala	
6	Industrial expert	Smt. Sireesha Rani Rokalla,	Manager (Technical), Food corporation of India, Bangalore	
7	Student	H. Anil	Dept. of Food and nutritional sciences, S.R.R. & C.V.R. GDC (A), Vijayawada	
7	Student	G Rajesh	Dept. of Food and nutritional sciences, S.R.R. & C.V.R. GDC (A), Vijayawada	

KRISHNA UNIVERSITY, MACHILIPATNAM ANDHRA PRADESH, INDIA

Minutes of Board of Studies in HOME SCIENCE (Minor) for Semester III, IV, V & VI (Effective from 2026-27)

Agenda: To approve the semester- III, IV, V&VI Syllabus and Model question papers of minor Home Science effective from the academic year 2026-27.

Discussion: BoS meeting is conducted on the subject of Home Science under the chairmanship of Dr. Sk. Beebi. The University nominee, External member, Subject experts, Industrial expert and student representatives attended the meeting in online mode. This is held on 21-10-2026 at 2.00 PM in the Dept. of Food Science and Technology, S.R.R. & C.V.R. Govt. Degree College (Autonomous) Vijayawada as per the instructions of Registrar, Krishna University, Machilipatnam. The Syllabus and Model question papers of semester III, IV, V & VI of Home Science (Minor) were kept for discussion and approval.

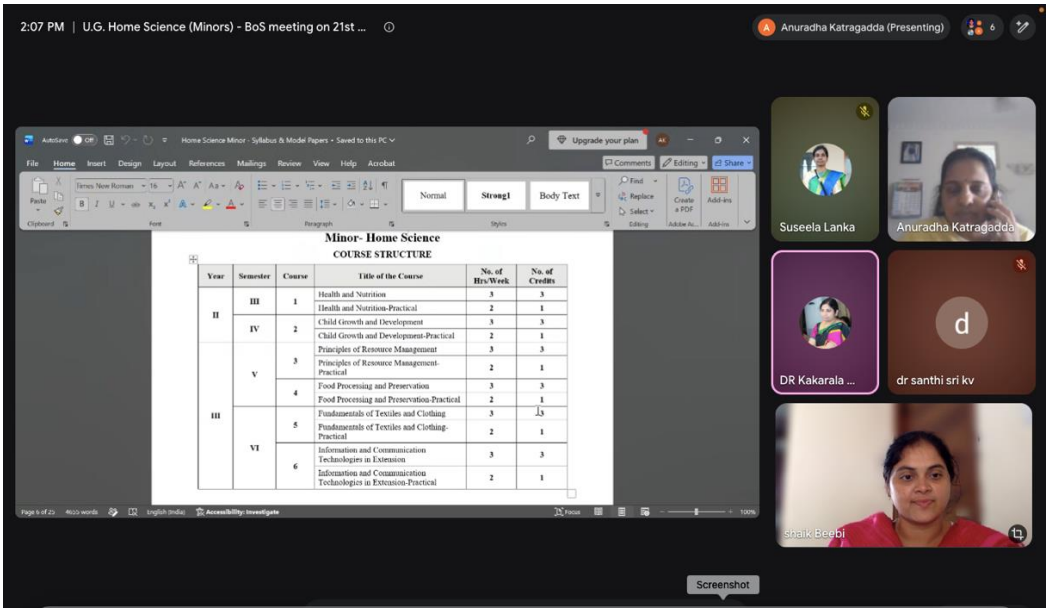
In the discussion regarding Course 4 of Semester V titled "Food Processing and Preservation" a new topic has been introduced in Unit -1i.e, Principles of food preservation.

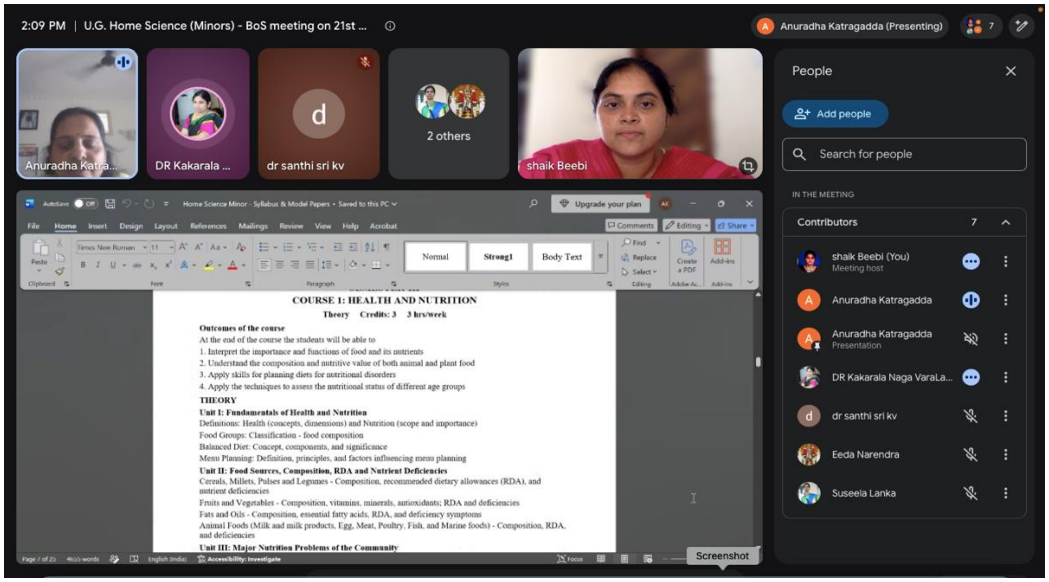
Resolutions:

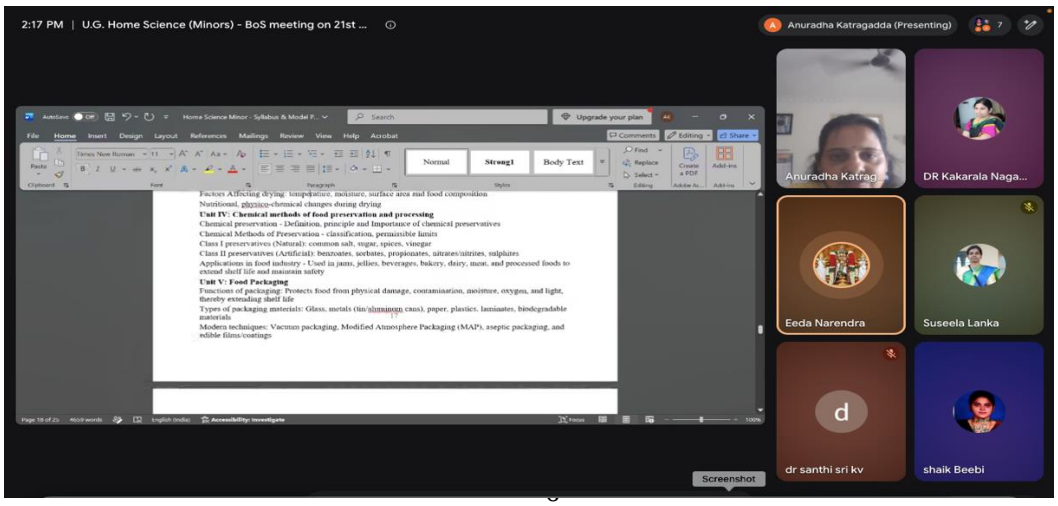
1. It is resolved to implement the changes suggested by Dr KN Varalakshmi subject expert which is approved by all the committee members.

2. It is also resolved to approve the model papers for semesters III, IV, V & VI

BOS MEETING IN ONLINE MODE







Minor- Home Science

COURSE STRUCTURE

Year	Semester	Course	Title of the Course	No. of Hrs/Week	No. of Credits
II	III	1	Health and Nutrition	3	3
			Health and Nutrition-Practical	2	1
	IV	2	Child Growth and Development	3	3
			Child Growth and Development-Practical	2	1
III	V	3	Principles of Resource Management	3	3
			Principles of Resource Management-Practical	2	1
		4	Food Processing and Preservation	3	3
			Food Processing and Preservation-Practical	2	1
	VI	5	Fundamentals of Textiles and Clothing	3	3
			Fundamentals of Textiles and Clothing-Practical	2	1
		6	Information and Communication Technologies in Extension	3	3
			Information and Communication Technologies in Extension-Practical	2	1

SEMESTER-III
COURSE 1: HEALTH AND NUTRITION

Theory Credits: 3 3 hrs/week

Outcomes of the course

At the end of the course the students will be able to

1. Interpret the importance and functions of food and its nutrients
2. Understand the composition and nutritive value of both animal and plant food
3. Apply skills for planning diets for nutritional disorders
4. Apply the techniques to assess the nutritional status of different age groups

THEORY

Unit I: Fundamentals of Health and Nutrition

Definitions: Health (concepts, dimensions) and Nutrition (scope and importance)

Food Groups: Classification - food composition

Balanced Diet: Concept, components, and significance

Menu Planning: Definition, principles, and factors influencing menu planning

Unit II: Food Sources, Composition, RDA and Nutrient Deficiencies

Cereals, Millets, Pulses and Legumes - Composition, recommended dietary allowances (RDA), and nutrient deficiencies

Fruits and Vegetables - Composition, vitamins, minerals, antioxidants; RDA and deficiencies

Fats and Oils - Composition, essential fatty acids, RDA, and deficiency symptoms

Animal Foods (Milk and milk products, Egg, Meat, Poultry, Fish, and Marine foods) - Composition, RDA, and deficiencies

Unit III: Major Nutrition Problems of the Community

Malnutrition and under nutrition - PEM/CED, obesity

Deficiencies - Vitamin A, iron, iodine - Etiology, Symptoms

Government programmes to eradicate PEM, Vitamin A, Iron and Iodine deficiencies

Principles of planning diets for different conditions of malnutrition

Unit IV: Nutrition Assessment and Strategies to Combat Nutrition Deficiency

Definition, Methods of Assessment - (a) Direct Methods - (i) Diet Surveys (ii) Anthropometric Assessment (iii) Clinical and (iv) Biochemical Assessment. (b) Indirect Methods - Vital Statistics - Merits and Demerits of methods

Food security - Definition - Management of food insecurity - Food Fortification and enrichment

Food Assistance and Food Supplementation - Policies and Programmes of the Government - Public Distribution System (PDS), Food For Work (FFW), Special Nutrition Programme (SNP), School Lunch Programme (SLP), Mid Day Meal Programme (MMP), Balawadi Nutrition Programme (BNP), Integrated Child Development Services (ICDS)

Unit V: Nutrition Education and Interventions

Concept, objectives and principles of nutrition education in community health

Approaches and methods of nutrition education, development of IEC materials

Information, Education, Communication (IEC), Behaviour Change Communication (BCC) and Social Behaviour Change Communication (SBCC) strategies

Community-based nutrition interventions and their monitoring and evaluation

SEMESTER-III - COURSE 1: HEALTH AND NUTRITION

Practical Credits: 1 2 hrs/week

1. Identification of Common Foods and Their Names in Telugu, Hindi, and English - along with understanding their nutrient composition
2. Standardization of Weights and Measures of Common Food Items
3. Assessment of Nutritional Status using Anthropometry and Dietary Method
4. Planning of Diets for Nutritional Deficiencies (PEM, Anaemia, Vitamin A Deficiency)
5. Planning and Conduct of Nutrition Education Programmes for Community Events (e.g., Breastfeeding Week, Nutrition Week, World Food Day)

REFERENCES

1. Bamji MS, Krishnaswamy K, Brahmam, (2016) Textbook of Human Nutrition, 4th edition. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Longvah, T., Ananthan, R., Bhaskarachary, K. and Venkaiah, K. (2017). Indian Food Composition Tables, Published by NIN
3. Raheena Begum, (2013). Textbook of Food, Nutrition and Dietetics, 3rd edition, Sterling Publishers Pvt. Ltd.
4. Shubhangini A. Joshi, (2002). Nutrition and Dietetics, 2nd edition, Tata McGraw-Hill Publishing Company Ltd.
5. Srilakshmi, B., (2018). Nutrition Science, 6th edition, New Age International Publishers.
6. Swaminadhan S, (2005). Advanced Text book on foods & nutrition, Vol. I & II (2nd revised and enlarged) Bappco.
7. Vijaya Khader, (2000). Food, nutrition & health, Kalyani Publishers.

CO-CURRICULAR ACTIVITIES

1. Student seminars on different nutrients
2. Preparation of posters, charts, flashcards etc. related to different nutrients - Functions, RDA, dietary sources, nutrient content of foods and deficiency symptoms
3. Collections of food samples rich in particular vitamins and minerals like calcium, iron etc.
4. Visit to food stores, vegetable and fruit markets to study locally available foods
5. Study projects to collect the data from people. Eg. Foods avoided or given in specific conditions
6. Celebration of Important Days (National and International): World Breast Feeding Week (August 1st - 7th), Nutrition Week (September 1st - 7th), Nutrition Month (September), World Food Day (October 16th)

SEMESTER-III
COURSE 1: HEALTH AND NUTRITION
Model Question Paper

Time: 3 hrs. **Max. Marks: 75**

PART A

Answer any FIVE questions. Each question carries 5 marks. **(5 x 5 = 25 Marks)**

1. Define health. Mention its dimensions.
2. Define balanced diet.
3. List the principles of menu planning.
4. What are essential fatty acids? Give two sources.
5. Write the symptoms of Vitamin A deficiency.
6. Define anthropometry.
7. What is food fortification?
8. State the objectives of nutrition education.

PART B

Answer ALL questions, choosing (a) or (b). Each carries 10 marks. **(5 x 10 = 50 Marks)**

9. (a) Explain the concept and dimensions of health.

OR

(b) Describe the classification of food groups with examples.

10. (a) Discuss the composition and nutritive value of cereals and millets.

OR

(b) Describe the nutritive value of milk and eggs.

11. (a) Explain the causes, symptoms and dietary management of PEM.

OR

(b) Describe the etiology and symptoms of iron deficiency anaemia. Add a note on the government programme to control it.

12. (a) Explain the direct methods of nutritional assessment.

OR

(b) Describe the objectives and services of ICDS and the Mid Day Meal Programme.

13. (a) Explain the approaches and methods of nutrition education.

OR

(b) Write about IEC, BCC and SBCC strategies.

SEMESTER-IV
COURSE 2: CHILD GROWTH AND DEVELOPMENT

Theory Credits: 3 3 hrs/week

Outcomes of the course

At the end of the course the students will be able to

1. Know the terms growth, development and stages of development across life span
2. Understand the characteristics of children at different stages of childhood
3. Explain different developments like physical, cognitive, language and social development during childhood
4. Apply knowledge to understand normal development and developmental delays during childhood

THEORY

Unit I: Foundations of Development

Understanding the terms Child Growth, Child Development, Human Development and Developmental tasks

Principles of Child Development and Factors influencing growth and Development of Children

Determinants of Development - Role of Heredity and Environment in Development

Stages of Development across life span and domains of development

Unit II: Brain Development

Structure of the brain, Nervous and Synapses Connections

Definition of Brain Development, Importance of brain development during early years

Factors influencing pre-natal brain Development

Role of stimulation in blooming and pruning in brain development

Unit III: Infancy

Infancy - Characteristics and Reflexes

Sensory-Motor activities

Language Development

Socio-emotional development

Unit IV: Early Childhood

Early Childhood Period - Characteristics

Physical Development

Cognitive development

Emotional and Social development

Unit V: Middle Childhood

Middle/Late Childhood Period - Characteristics

Physical development

Cognitive development

Emotional and Social development

SEMESTER-IV - COURSE 2: CHILD GROWTH AND DEVELOPMENT

Practical Credits: 1 2 hrs/week

1. Observation of infants for reflexes
2. Preparation of materials for infant stimulation
3. Preparation of audio-visual aids for creating awareness about importance of brain development during early years
4. Recording all round development of children during early childhood period
5. Assessment of social development during late childhood year

REFERENCES

1. Berk, L. E. (2007). Child Development. Prentice-Hall of India Pvt. Ltd, New Delhi.
2. Feldman, R.S. (2011). Understanding Psychology, Tenth Edition. Tata McGraw Hill Education Private Limited, New Delhi.
3. Dev Dass, R.P. and Jaya, N. (1999). A textbook on child development, Mac Millan Co.
4. Hurlock, E.B. (1990). Child development, McGraw Hill Company Ltd, New York.
5. Rozario, J. and Karanth, P. (2003). Learning disability in India. Sage publication, New Delhi.
6. Santrock, J. W. (2013). Child Development. Tata McGraw Hill Company Ltd, New Delhi.
7. Singh, A. (Ed). (2015). Foundations of Human Development: A life span approach. Tata McGraw Hill, New Delhi.

SEMESTER-IV

COURSE 2: CHILD GROWTH AND DEVELOPMENT

Model Question Paper

Time: 3 hrs. **Max. Marks: 70**

PART A

Answer any FIVE questions. Each question carries 5 marks. **(5 x 4 = 20 Marks)**

1. Differentiate growth and development.
2. What are developmental tasks?
3. Define brain development.
4. List any four reflexes of a newborn.
5. Write the characteristics of early childhood.
6. What is synaptic pruning?
7. Mention the characteristics of middle childhood.
8. Write a note on language development in infancy.

PART B

Answer ALL questions, choosing (a) or (b). Each carries 10 marks. **(5 x 10 = 50 Marks)**

9. (a) Explain the principles of child development.

OR

(b) Discuss the role of heredity and environment in development.

10. (a) Describe the structure of the brain and the nervous system.

OR

(b) Explain the factors influencing prenatal brain development.

11. (a) Explain the physical and sensory-motor development in infancy.

OR

(b) Describe the socio-emotional development in infancy.

12. (a) Describe the cognitive development in early childhood.

OR

(b) Explain the emotional and social development in early childhood.

13. (a) Explain the physical development during middle childhood.

OR

(b) Discuss the emotional and social development in middle childhood.

SEMESTER-V

COURSE 3: PRINCIPLES OF RESOURCE MANAGEMENT

Theory Credits: 3 3 hrs/week

Outcomes of the course

At the end of the course the students will be able to

1. Apply the principles of management process in day-to-day life
2. Identify and analyze the need for resources
3. Utilize tools of time management effectively in day-to-day life
4. Apply work simplification techniques while managing work

THEORY

Unit I

Management Concepts - Definition, Concept, Micro and Macro environment. Principles of Management Process - Planning, Controlling, Evaluating. Qualities of a Good Manager. Motivational factors - Values, Goals and Standards

Unit II

Resources - Meaning and classification, optimizing the use of family resources, Factors affecting the use of resources

Decision making - Meaning and its importance, Types of decisions, Decision making process, Methods of resolving conflicts

Unit III

Time Management - Tools in time management - Time norms, Peak loads, Work Curves and rest periods, Time management process - Planning - Steps in making time plans - Controlling the planning action - Evaluation

Energy Management - The efforts required in home-making activities; Energy required for household activities

Unit IV

Work Simplification - Definition, Importance, Techniques - Formal and Informal Techniques - Mundel's Classes of change - Planning efficient work areas in kitchen

Body Mechanics - Posture, Gravity, Rhythmic movement, Proper use of Muscle and to take advantage of Momentum

Fatigue - Concepts, Types - Physiological and Psychological fatigue and Managerial process applied to energy

Unit V

Money Management - Family Income - Types, sources and methods of augmenting family income

Family Expenditure - Budget - Meaning - Types of budgets, Planning a budget for a family of a fixed income advantages of budgeting, Factors affecting family budget, Engel's law of consumption, methods of handling money - Family financial records, Savings - importance and types

SEMESTER-V - COURSE 3: PRINCIPLES OF RESOURCE MANAGEMENT

Practical Credits: 1 2 hrs/week

1. Identification of personal and family values and goals - their interrelationship
2. List out the resources optimizing the goal
3. Preparation of a time schedule and Evaluate time schedule using Gantt chart
4. Study on work heights based on anthropometric measurement on vertical and horizontal planes
5. Preparation of family budget. Study of a saving institution and its scheme

REFERENCES

1. Bela Bhargava (2005), Family Resource Management & Interior Decoration, University Book House Pvt Ltd, ISBN-13: 978-8187339229.
2. Marion Giordan (2016), Consumer Education: A Handbook for Teachers, Routledge; 1st edition, ISBN-13: 978-1138839151
3. Nickell & Dorsey (2002), Management in Family Living, CBS; 4th edition, ISBN-13: 978-8123908519
4. Pushpa Chakravorty (2007), Home Management, New Delhi: Pointer Publishers.
5. Rao (2020), Taxmann's Human Resource Management, Taxmann Publications Pvt. Ltd.; 2nd edition, ISBN-13: 978-9390128396
6. Ready GB (2021), EBC Consumer Protection Act, Law Books, ASIN: B097TQ64QV
7. Steven, D.S, (2016). Consumer Economics: A Practical Overview, New York: Routledge Taylor and Francis group.
8. Sudhir Dixit (2018), Time Management, Manjul Publishing House, ISBN-13: 978-9388241106

SEMESTER-V

COURSE 3: PRINCIPLES OF RESOURCE MANAGEMENT

Model Question Paper

Time: 3 hrs. **Max. Marks: 70**

PART A

Answer any FIVE questions. Each question carries 5 marks. **(5 x 4 = 20 Marks)**

1. Define management.
2. Differentiate between values and goals.
3. Classify family resources.
4. List the steps in decision making.
5. Define time norms and peak load.
6. What is work simplification?
7. Define fatigue.
8. State Engel's law of consumption.

PART B

Answer ALL questions, choosing (a) or (b). Each carries 10 marks. **(5 x 10 = 50 Marks)**

9. (a) Explain the management process.

OR

(b) Describe the qualities of a good manager.

10. (a) Explain the classification of resources and the factors affecting their use.

OR

(b) Discuss the decision making process and the types of decisions.

11. (a) Explain the steps in making a time plan.

OR

(b) Write about work curves and rest periods. Add a note on energy management.

12. (a) Explain Mundel's classes of change.

OR

(b) Describe the principles of body mechanics.

13. (a) Define budget. Explain the types of budgets and the steps in planning a family budget.

OR

(b) Describe the sources of family income and methods of augmenting it.

SEMESTER-V
COURSE 4: FOOD PROCESSING AND PRESERVATION

Theory Credits: 3 3 hrs/week

Outcomes of the course

At the end of the course the students will be able to

1. Understand the fundamental principles and scientific basis of food processing and preservation methods
2. Apply different preservation techniques (thermal, freezing, drying, concentration, membrane) and evaluate their impact on food quality
3. Analyze changes in nutritional, physico-chemical, and sensory properties of foods during processing and storage
4. Demonstrate skills in basic food preservation experiments and assess their relevance to industrial and community applications

THEORY

Unit I: Thermal temperature preservation and processing

Principles of food preservation, High temperature methods of food processing - definition, Principles, methods

Pasteurization, definition, principle, classification based on time and temperature

Sterilization - Definition, principle, methods of sterilization

Blanching - Definition, principle, Methods and Processing

Canning - definition, Principle and process of canning

Unit II: Low temperature preservation and processing

Refrigeration: Definition and Principle, storage and temperature

Food Freezing and thawing process: Definition and Principle, Time and rate of Freezing

Distinction between Refrigeration and Freezing

Freezing methods: Air freezing, plate freezing, liquid immersion freezing and cryogenic freezing. Freezer selection

Advantages and disadvantages of freezing and changes in food during freezing storage

Unit III: Drying/Dehydration

Drying/Dehydration: Definition, Principle

Methods of Drying: Sun/solar drying, Cabinet drying, tunnel dryer, spray dryer, freeze dryer, fluidized bed dryer

Factors Affecting drying: temperature, moisture, surface area and food composition

Nutritional, physico-chemical changes during drying

Unit IV: Chemical methods of food preservation and processing

Chemical preservation - Definition, principle and Importance of chemical preservatives

Chemical Methods of Preservation - classification, permissible limits

Class I preservatives (Natural): common salt, sugar, spices, vinegar

Class II preservatives (Artificial): benzoates, sorbates, propionates, nitrates/nitrites, sulphites

Applications in food industry - Used in jams, jellies, beverages, bakery, dairy, meat, and processed foods to extend shelf life and maintain safety

Unit V: Food Packaging

Functions of packaging: Protects food from physical damage, contamination, moisture, oxygen, and light, thereby extending shelf life

Types of packaging materials: Glass, metals (tin/aluminum cans), paper, plastics, laminates, biodegradable materials

Modern techniques: Vacuum packaging, Modified Atmosphere Packaging (MAP), aseptic packaging, and edible films/coatings

Role in food industry: Ensures product safety, convenience in handling/transport, branding/marketing, and regulatory compliance (labelling)

SEMESTER-V - COURSE 4: FOOD PROCESSING AND PRESERVATION

Practical Credits: 1 2 hrs/week

1. Market survey of processed and preserved foods and to study the methods of processing, preservation, Additives and preservatives used, shelf life, cost and form of availability
2. Preservation of food by traditional methods using sugar, salt and turmeric powder etc. and Chemical preservatives
3. Preparation of Jams, Jellies, fruit Juices, Squashes, Sauces and bottling - Shelf life study
4. Pickling with a variety of foods - Shelf life study
5. Drying and dehydration of foods. Refrigeration, Freezing and freeze drying of foods

REFERENCES

1. Ramaswamy H. & Marcotte M. Food Processing: Principles and Applications. Taylor & Francis.
2. Norman N Potter and Joseph H. Hotchkiss. Food Science. CBS Publishers and Distributors.
3. Barbosa-Canovas, Tapia & Cano (2004). Novel Food Processing Technologies. CRC Press.
4. Fellows, P. and Ellis, H. (1990). Food Processing Technology: Principles and Practice, New York.
5. Shafiur Rahman, (2011). Handbook of Food Preservation, CRC Press, New York.
6. Harry W. Von Loesecke (1998). Drying and Dehydration of Foods, Allied Scientific, New Delhi.
7. Jelen, P. (1985). Introduction to Food Processing, Prentice Hall, Reston Virginia, USA.

SEMESTER-V

COURSE 4: FOOD PROCESSING AND PRESERVATION

Model Question Paper

Time: 3 hrs. **Max. Marks: 70**

PART A

Answer any FIVE questions. Each question carries 5 marks. **(5 x 4 = 20 Marks)**

1. Define pasteurization.
2. What is blanching?
3. Differentiate refrigeration and freezing.
4. List the methods of freezing.
5. Name the factors affecting drying.
6. What are Class I preservatives? Give examples.
7. Mention any four functions of food packaging.
8. What is Modified Atmosphere Packaging?

PART B

Answer ALL questions, choosing (a) or (b). Each carries 10 marks. **(5 x 10 = 50 Marks)**

9. (a) Explain the methods of sterilization.

OR

(b) Describe the canning process.

10. (a) Explain the methods of freezing.

OR

(b) Discuss the changes in food during freezing storage.

11. (a) Describe the methods of drying.

OR

(b) Explain the nutritional and physico-chemical changes during drying.

12. (a) Explain Class II preservatives with their permissible limits.

OR

(b) Describe the applications of chemical preservatives in the food industry.

13. (a) Explain the types of packaging materials.

OR

(b) Describe the modern packaging techniques.

SEMESTER-VI

COURSE 5: FUNDAMENTALS OF TEXTILES AND CLOTHING

Theory Credits: 3 3 hrs/week

Outcomes of the course

At the end of the course the students will be able to

1. Understand the use of Textile fibres in various fields
2. Identify different fibres like plants, and animal fibres based on properties
3. Gain knowledge on manufacturing of different textile fibers
4. Understand the method of Spinning and process of yarn construction

THEORY

Unit I: Introduction to Textiles

Introduction to textiles - Importance of study of textiles

General properties of a Textile Fiber - Primary and Secondary

Classification of textile fibers - Natural and manmade; cellulose, protein, synthetic and mineral

Unit II: Natural Fibers

Cellulose fibres - Cotton and Linen - Production, properties, use and care

Minor cellulose fibres

Protein fibers - Silk and wool - Production, properties, use and care

Unit III: Synthetic Fiber

Nylon - Production, properties, use and care

Polyester - Production, properties, use and care

Acrylic fibres - Production, properties, use and care

Unit IV: Mineral Fibers

Mineral fibres - Fibre glass and Asbestos - Production, properties and Uses

Mixtures and Blends - Importance and advantages of Blending. Blends of Natural cellulose fibers, protein fibers and manmade fibers

Unit V: Yarns

Yarns - Types of Yarns - Staple and Filament

Methods of spinning - Mechanical process

Methods of spinning - Chemical process - Wet, Dry

Classification of yarns - simple, novelty and textured yarns

SEMESTER-VI - COURSE 5: FUNDAMENTALS OF TEXTILES AND CLOTHING

Practical Credits: 1 2 hrs/week

1. Identification and collection of Textile Fibres: Plant Fibres - Cotton, Linen, Jute; Animal Fibres - Silk, Wool; Synthetic Fibres - Polyester, Nylon, Acrylic
2. Identification and collection of Yarns - Simple Yarns and Novelty Yarns
3. Tests to identify textile fibers - Texture
4. Microscopic examination of fibres
5. Examination and identification of fibres using Burning test

REFERENCES

1. Deepali Rastogi and Sheetal Chopra (2017). Textile Science, 1st edition, Orient Black Swan Pvt. Ltd.
2. Kanwar Varinder Pal Singh. (2014). Introduction to Textiles, 1st edition, Kalyani Publishers.
3. Seema Sekhri. (2017). Text book of Fabric - Fundamentals to Finishing, 2nd edition, PHI Learning Pvt. Ltd.
4. Sushma Gupta, Neeru Garg, Renu Saini. (2018). Text book of clothing, textiles and laundry, 8th edition, Kalyani publishers.
5. Vastala, R. (2013). Text book of Textiles and Clothing, 1st edition, Published by ICAR.

CO-CURRICULAR ACTIVITIES

1. Seminar/Assignment/Quiz/Group Discussion
2. Use of ICT in Class reports and Seminars
3. Project Work
4. Construction of garments and their exhibition
5. Visit to nearby weaving, dyeing units and printing Centres

SEMESTER-VI

COURSE 5: FUNDAMENTALS OF TEXTILES AND CLOTHING

Model Question Paper

Time: 3 hrs. **Max. Marks: 70**

PART A

Answer any FIVE questions. Each question carries 5 marks. **(5 x 4 = 20 Marks)**

1. Why is the study of textiles important?
2. List the primary properties of a textile fibre.
3. Differentiate natural and man-made fibres
4. Write any four uses of linen.
5. How is silk cared for?
6. Mention the advantages of blending.
7. Differentiate staple and filament yarns.
8. What are novelty yarns?

PART B

Answer ALL questions, choosing (a) or (b). Each carries 10 marks. **(5 x 10 = 50 Marks)**

9. (a) Explain the primary and secondary properties of a textile fibre.

OR

(b) Classify textile fibres with examples.

10. (a) Describe the production and properties of cotton.

OR

(b) Describe the production and properties wool.

11. (a) Explain the production, properties and uses of nylon.

OR

(b) Describe the properties and uses of acrylic.

12. (a) Explain the production and uses of fibre glass and asbestos.

OR

(b) Discuss the importance of blending with examples of blends.

13. (a) Describe the mechanical process of spinning.

OR

(b) Explain the wet and dry methods of chemical spinning.

SEMESTER-VI

COURSE 6: INFORMATION AND COMMUNICATION TECHNOLOGIES IN EXTENSION

Theory Credits: 3 3 hrs/week

Outcomes of the course

At the end of the course the students will be able to

1. Know about the importance of Information and Communication technologies in Extension
2. Understand the role of ICT in Education
3. Analyze the role of different types of ICT and their Classification
4. Evaluate different types of Traditional and Modern ICT tools and their relevance in Extension

THEORY

Unit I

Introduction to Information and Communication Technology, Definition, Meaning and concept of ICT

Communication systems - concept, functions, and significance

Types of Communication systems - Interpersonal, Public and Mass communication

Characteristics and nature of ICTs

Unit II

ICT and Education

Role of ICT in Education, Extension and Development

Classification of ICTs

Teleconferencing - Audio and Video conferencing

Unit III

Satellite communication - Video conferencing and its Technological aspects

Synchronous and Asynchronous modes of Communication

Computer Assisted learning

Relationship of Communication Process with ICT

Unit IV

ICTs in Environment, Climate change and Disaster management

Traditional and modern ICTs and their relevance to development

Evolution of ICTs - Global and Local level

Unit V

E-Governance - Concept, measures to be taken for E-governance

E-Commerce, initiatives under e-governance, Mobile governance

Analysis of Advertisements in media - Print, audio and video

SEMESTER-VI - COURSE 6: INFORMATION AND COMMUNICATION TECHNOLOGIES IN EXTENSION

Practical Credits: 1 2 hrs/week

1. Planning, development and evaluation of Communication strategies and techniques for selected media
2. Evaluation of print, electronic and outdoor media systems
3. Evaluation of a newspaper story, a radio programme or a television broadcast
4. Designing a visual composition book cover with the help of Computers

REFERENCES

1. Unwin T. Ed (2009). Information and Communication Technology for Development. Cambridge University Press.
2. Tongia, R., Subramanian, E. & Arunachalam, V. (2005). Information & Communication Technology for Sustainable Development. Bangalore: Allied Publishers.
3. Weigel G. & Waldburger, D. (Eds) (2004). ICT 4D - Connecting people for a better world.
4. Gunaratne, S. Handbook of the Media, Sage, 2000.
5. Zachariah, A. (1999). Media power, people, politics and public interest.

CO-CURRICULAR ACTIVITIES

1. Evaluation of print, electronic and outdoor media systems
2. Evaluation of a newspaper story, a radio programme or a television broadcast
3. Seminar presentation on ICT at global and local level
4. Planning and preparation of Visual aids

SEMESTER-VI

COURSE 6: INFORMATION AND COMMUNICATION TECHNOLOGIES IN EXTENSION

Model Question Paper

Time: 3 hrs. **Max. Marks: 70**

PART A

Answer any FIVE questions. Each question carries 5 marks. **(5 x 4 = 20 Marks)**

1. Define ICT.
2. List the types of communication systems.
3. Mention any four characteristics of ICTs.
4. Write the role of ICT in education.
5. Differentiate synchronous and asynchronous communication.
6. What is computer assisted learning?
7. Define e-governance.
8. What is mobile governance?

PART B

Answer ALL questions, choosing (a) or (b). Each carries 10 marks. **(5 x 10 = 50 Marks)**

9. (a) Explain the concept, functions and significance of communication systems.

OR

(b) Describe interpersonal, public and mass communication.

10. (a) Explain the role of ICT in extension and development.

OR

(b) Classify ICTs with examples.

11. (a) Explain audio and video conferencing.

OR

(b) Describe satellite communication and its technological aspects.

12. (a) Explain the role of ICTs in disaster management and climate change.

OR

(b) Compare traditional and modern ICTs and their relevance to development.

13. (a) Explain the measures to be taken for e-governance.

OR

(b) Describe e-commerce. Add a note on analysis of advertisements in media.