

MANIPUR UNIVERSITY
FOUR YEARS UNDERGRADUATE PROGRAMME (FYUP) IN HOME SCIENCE
2025
(Based on NEP-2020)

Under Section 31 of the Manipur University Act, 2005



Syllabus for Home Science
School of Human and Environmental Sciences Manipur
University, Canchipur, Imphal - 795003

MANIPUR UNIVERSITY
FOUR YEARS UNDERGRADUATE PROGRAMME (FYUP)
IN HOME SCIENCE, 2025

Introduction:

In response to the evolving landscape of Higher Education and the growing demand for a holistic and multidisciplinary academic framework, Manipur University has restructured the *Four-Year Undergraduate Programme (FYUP)* in Home Science, effective from the academic session 2025. This revision is undertaken under the authority of Section 31 and Statute 41 of the Manipur University Act, 2005, and is aligned with the directives of the *National Education Policy (NEP) 2020* issued by the Government of India. It also adheres to the latest guidelines of the *University Grants Commission (UGC)*, including the Learning Outcomes-based Curriculum Framework (LOCF), National Higher Education Qualifications Framework (NHEQF) 2023, National Credit Framework 2023, and the UGC's 2022 Curriculum and Credit Framework, as well as the UGC (Minimum Standards of Instruction) Regulations, 2025.

The restructured FYUP in Home Science offers a flexible, multidisciplinary, and outcome-driven approach, with structured provisions for multiple entry and exit options. Students can exit with a Bachelor's Certificate (after 1 year, 40 credits), Diploma (after 2 years, 80 credits), Bachelor's Degree (after 3 years, 120 credits), or continue to earn a Bachelor's Degree with Honours or Honours with Research (after 4 years, 160 credits). The fourth-year research track is open to eligible students with a minimum CGPA of 7.5.

The curriculum integrates major and minor disciplines, interdisciplinary and skill-based courses, vocational training, value-added components (e.g., Environmental Education, Indian Knowledge Systems), and experiential learning such as internships and field projects. Course structures follow the LOCF and are assessed through internal (30%) and end-semester (70%) evaluations. Academic records are managed through the Academic Bank of Credits (ABC) and Automated Permanent Academic Account (APAAR.)

This ordinance fosters academic flexibility, skill development, and employability, while maintaining rigour and promoting inclusive, student-centred learning.

Programme Specific Outcome of the Four-Year UG Programme in Home Science:

1. Provide foundational and interdisciplinary knowledge in the core areas of Home Science, including nutrition, child development, textiles, resource management, and extension education.
2. Develop life skills and analytical abilities for effective problem-solving in personal, family, and community contexts.

3. Prepare students for careers, entrepreneurship, and higher studies through skill-based, practical, and research-oriented learning.
4. Promote social responsibility and sustainability through community engagement, fieldwork, and increased awareness of societal needs.
5. Foster ethical values, gender sensitivity, and leadership qualities to meet the challenges of modern life and contribute positively to society.

COURSE STRUCTURE FOR 4 YEAR UG PROGRAMMES IN HOME SCIENCE:

Semester	MAJOR (Credit)	MINOR (Credit)	MDC (Credit)	AEC (Credit)	SEC (Credit)	VAC (Credit)	Semester Credit
I	Major – 1 (4) (Level 100)	Minor – 1 (4) (Level 100)	MDC – 1 (3)	*AEC – 1 (4)	SEC – 1 (3)	*VAC – 1 (2)	20
II	Major – 2 (4) (Level 100)	Minor – 2 (4) (Level 100)	MDC – 2 (3)	*AEC – 2 (4)	SEC – 2 (3)	*VAC – 2 (2)	20
Students exiting at 1 Year will be awarded Bachelor's Certificate after earning minimum credit in the concerned discipline provided the student earned additional 4 credits in work- based vocational courses offered during the Summer internship or apprenticeship.							

Note: *AEC and VAC are to be opted by students out of the list of suitable/ approved courses being offered by the College/ University.

COURSE STRUCTURE FOR FIRST YEAR (SEMESTER- I):

Semester	Course		Title of the paper	Credit
	Category	Code		
I (FIRST)	Major	MJC45HSC101(T)25	Fundamentals of Home Science	3
		MJC45HSC101(P)25	Fundamentals of Home Science	1
	Minor	MNC45HSC101(T)25	Introduction to Home Science	3
		MNC45HSC101(P)25	Introduction to Home Science	1
	MDC	MDC45HSC101a(T)25 or MDC45HSC101b(T)25	Introduction To Dietetics or Parenting and Child Development	3
	AEC			4
	SEC	SEC45HSC101a(T)25 Or SEC45HSC101b(T)25	Bakery and Quantity Cookery or Life Skill Education	3
	VAC			2
	Total Credit			20

MJC45HSC101(T)25: FUNDAMENTALS OF HOME SCIENCE**Credit – (3)****Contact hour- 45 Hrs.**

<i>Nature of Course</i>	Major				
<i>Course Code</i>	MJC45HSC101(T)25				
<i>Course Title</i>	Fundamentals of Home Science				
<i>Course Level</i>	Level 100				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	4	3		1	4
<i>Course Audience</i>	Major Students enrolled in the FYUGP in Home Sciences				
<i>Proposed by (for Non- Core courses)</i>	No board of studies				
<i>Pre Requisites (if any)</i>	Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education.				
<i>Skill Training Required (if any)</i>	Personal and Family Life Skills, Textile and Clothing Skills, Child Development Skills, Resource management skills, Entrepreneurial and vocational skills				
<i>Pre-Requisite Course Required (if any)</i>	10+2 Home Science				
<i>Faculty Eligibility and Specialization (if any)</i>	Master's Degree in Home Science specialised in Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education with Ph.D. and/or NET qualification will be preferred.				

Course Objectives:

This course introduces the fundamentals of Home Science, focusing on the interrelationship between food, nutrition, and health, and the role of macro and micronutrients in a balanced diet. It covers key concepts of human development across life stages and principles of effective family resource management. Students will also learn the basics of textiles, fabric construction, and clothing techniques, along with the role of home science extension in addressing community needs. The course aims to develop interdisciplinary knowledge and practical skills to improve individual, family, and community well-being.

Course Outcomes:

After completing this course, students will be able to:

- Explain the link between food, nutrition, and health, and describe the roles of macro and micronutrients in a balanced diet.
- Understand human development across the life span.
- Apply principles of resource management for effective family decision-making.
- Demonstrate basic knowledge of textiles and clothing, including fiber classification, fabric construction, and garment-making techniques.

- Differentiate formal and extension education, and apply home science knowledge to address family and community needs.

UNIT – I: Food and Nutrition:

Definition and concepts - Food, Nutrition, Nutrients, Nutritional status, Malnutrition, Balanced diet, Relation of food and nutrition to health. Classification of food based on nutrients and source, Functions of food - physiological, psychological and socio-cultural. Macro and Micro nutrients- Functions, Requirements, Deficiency, Basic five and seven food groups. Importance and scope of food and nutrition

UNIT – II: Human Development:

Human Development – Definition, Meaning and Concept; Prenatal Development – Definition, Stages and its Importance; Principles of Growth and Development and its influencing factors; Stages of Human Life Span and their main developmental tasks; Concepts of Exceptional Children; Scope of Human Development

UNIT – III: Family Resource Management: -

Introduction to Home Management- Meaning, Definition, Need and Philosophy; Approach to Resources in the Family – Meaning and types of Resources, Characteristics, Factors affecting utilization of resources, Importance of resources, Guide to increase satisfaction from resources, Relation between Resource and Management in the Home, Methods of conservation of resources - Natural, Man-made and community resource; Management Process- Meaning, Elements of Management process, Decision Making- steps, kinds of decision, Qualities of an efficient home maker.

UNIT – IV: Textile and Clothing:

Introduction to Textiles - Definition, Classification of textiles fibres and Properties of Cotton, Wool, Silk, Nylon and Rayon; Yarn Construction - Definition, Classification, Properties of Yarn ,Yarn Construction - Mechanical and Chemical Spinning of Cotton, Wool, Silk and Nylon; Techniques of Fabric Construction: Weaving- Loom and its different parts, major operation of weaving, weave- basic and fancy weave, Knitting, Braiding, Knotting, Felting, Netting, Bonding, Crocheting, Lace making, Lamination and Non-woven.

UNIT – V: Extension Education:

Introduction to Extension Education: Meaning and definition of non-formal education, formal education, extension education, objectives, principles and importance of home science extension; Difference between Extension education and Formal education; Concept of Needs-Types-felt and unfelt needs; Classification of Extension teaching methods according to form and use, Meaning and Importance of communication, Role of effective communication, Elements and Models of communication.

PRACTICAL
MJC45HSC101(P)25

Credit –(1)
Contact hour – 30 Hrs.

1. Identify common deficiency diseases in a selected area and writing a report.
2. Resource conservation- Optimization in natural resource - water, plant & energy; Man-made resource - market, hospital, parks, college & community hall.
3. Preparation of any extension teaching aids used in home science extension work.
4. Preparation of chart showing time table of pre-natal development, different developmental milestones.
5. Identification of different fibres -visual test, microscopic view, burning test and solubility test. Making samples of different types of fabric - weaving, crocheting, knitting, knotting, braiding.

List of Essential Major Equipment:

Loom, Microscope, Embroidery Machine, Hand Spinning Wheel, Yarn Warp Board, Carding Machine, Hot Melt Lamination, Solar Cooker, Microwave Oven, Refrigerator, Gas Stove.

Bulletin Board, Overhead Projector (OHP), Liquid Crystal Display (LCD), Flannel Board, Laptop.

Major Laboratory Stores/Consumables Required:

Cooking/kitchen equipment-Crockeries & Cutleries, Growth monitoring tools: baby scale, stadiometer, measuring tape, Developmental toys & learning materials, Charts/Models: Stages of life span, Prenatal development, Models or posters: Management process steps, Decision-making tree, Knitting needles, crochet hooks, braiding cords, Pins, scissors, measuring tape, needles, threads, Yarn samples (different types, thicknesses, twists), Posters, flip charts, pamphlets, Flashcards, charts, models (educational aids), Whiteboard, marker pens, stationery.

REFERENCES

1. Corbman, P. B. *Textiles: Fibres to Fabric*. Gregg Division/McGraw Hill Book Co.
2. Devadas, Rajammal P. *A Text Book on Child Development*. McMillan India Ltd.
3. Dhahama, O. P., and O. P. Bhatnagar. *Education and Communication for Development*. Oxford and IBH Publishing.
4. Dubey, V. K., and Indira Bishnoi. *Extension Education and Communication*. New Age International Publishers.
5. Gupta, Sushma, Neeru Garg, and Renu Saini. *Text Book of Clothing, Textiles & Laundry*. Kalyani Publishers.
6. Hurlock, Elizabeth B. *Developmental Psychology*. Tata McGraw Hill Publishing Company.

7. Mudambi, Sumati R., and Rajagopal. *Fundamentals of Food and Nutrition*. Wiley Eastern.
8. Mullick, Premalata. *A Text Book of Home Science*. Kalyani Publishers.
9. Rathore, O. S., L. L. Somani, et al. *Handbook of Extension Education*. 5th ed., Agrotech Publishing Academy.
10. Supe, S. V. *An Introduction to Extension Education*. Oxford and IBH Publishing.
11. The Educational Planning Group. *Food and Nutrition*. Arya Publishing House.
12. The Educational Planning Group. *Home Management*. Arya Publishing House.
13. Varghese, M. A., N. Ogalle, and K. Srinivasan. *Home Management*. Wiley Eastern Ltd.

CO-PSO mapping matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	
CO2	✓	✓	✓		
CO3	✓	✓	✓	✓	
CO4	✓	✓	✓		
CO5	✓	✓	✓	✓	✓

MNC45HSC101(T)25: Introduction to Home Science**Credit – (3)****Contact Hour – 45 Hrs.**

<i>Nature of Course</i>	Minor				
<i>Course Code</i>	MNC45HSC101(T)25				
<i>Course Title</i>	Introduction to Home Science				
<i>Course Level</i>	Level 100				
<i>Credit Details</i>	Total Credit	Lecture/Week	Tutorial/Week	Practical/Week	Total Hours/Week
	4	3		1	4
<i>Course Audience</i>	Major Students enrolled in the FYUGP in Home Sciences				
<i>Proposed by (for Non- Core courses)</i>	No board of studies				
<i>Pre Requisites (if any)</i>	Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education.				
<i>Skill Training Required (if any)</i>	Personal and Family Life Skills, Textile and Clothing Skills, Child Development Skills, Resource management skills, Entrepreneurial and vocational skills				
<i>Pre-Requisite Course Required (if any)</i>	10+2 Home Science				
<i>Faculty Eligibility and Specialization (if any)</i>	Master's Degree in Home Science specialised in Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education with Ph.D. and/or NET qualification will be preferred.				

Course Objectives:

This course introduces the fundamentals of food, nutrition, and their impact on health, including nutrients, balanced diets, and food classification. It covers human development across the lifespan, with emphasis on growth stages and exceptional children. Family resource management focuses on efficient use and conservation of resources through planning and decision-making. The textiles unit explores types, properties, and construction techniques of fibres and fabrics. Finally, extension education highlights its role in community development and the principles of home science outreach.

Course Outcomes:

After completing this course, students will be able to:

- Explain the fundamental concepts of food, nutrition, nutrients, and their role in maintaining health and preventing malnutrition.

- Describe the stages of human development, including prenatal development, and understand the needs of exceptional children.
- Apply the principles of family resource management for effective decision-making and resource conservation at the household level.
- Demonstrate basic knowledge of textile fibres, yarns, and fabric construction techniques used in clothing and home furnishing.
- Differentiate between formal and extension education, and understand the role of home science extension in addressing community needs.

UNIT – I: Food and Nutrition:

Definition and concepts - Food, Nutrition, Nutrients, Nutritional status, Malnutrition, Balanced diet. Relation of food and nutrition to health; Classification of food based on nutrients and source. Functions of food - physiological, psychological and socio-cultural; Macro and Micro nutrients -Functions, Requirements and Deficiency diseases. Basic five and seven food groups. Importance and scope of food and nutrition

UNIT – II: Human Development:

Human Development – Definition and meaning of human development; Prenatal Development – Stages of prenatal development; Growth and Development – Meaning and principles of growth and development; Stages of Human Life Span; Exceptional Children – Concepts and types; Scope of Human Development – Career opportunities.

UNIT – III: Family Resource Management:

Introduction to Home Management- Meaning, Definition, Need and Philosophy; Approach to Resources in the Family – Meaning and types of Resources, Characteristics, Factors affecting utilization of resources, Importance of resources, Guide to increase satisfaction from resources. Methods of conservation of resources- Natural, Man-made and community resource; Management process- Meaning, Elements of Management process, Decision Making- steps, kinds of decision, Qualities of an efficient home maker.

UNIT – IV: Textile and Clothing:

Introduction to Textiles – Definition and classification of textiles fibres. Properties of Cotton, Wool, Silk and Nylon; Yarn - Definition, types and Properties of Yarn. Yarn construction of Cotton, Wool, Silk and Nylon; Techniques of Fabric Construction: Weaving-loom and its different parts, types of weaves. Knitting, Braiding, Knotting, Felting, Netting, Bonding, Crocheting, Lamination and Non-woven.

UNIT – V: Extension Education:

Introduction to Extension Education: Meaning and definition of extension education, objectives and principles of home science extension education; Difference between Extension education and Formal education; Concept of Needs- Types -felt and unfelt needs;

Classification of Extension teaching methods according to form and use. Importance of Home Science Extension Education.

PRACTICAL
MNC45HSC101(P)25

Credit – 1
Contact Hour –30 Hrs

1. Market survey of locally available food items and their cost.
2. Resource conservation- Optimization in natural resource - water, plant & energy; Man-made resource - market, hospital, parks, college & community hall.
3. Prepare any extension teaching aids used in home extension work.
4. Preparation of chart showing time table of pre-natal development.
5. Identification of different fibers -visual test, microscopic view, burning test and solubility test.

List of Essential Major Equipment:

Loom, Microscope, Embroidery Machine, Hand Spinning Wheel, Yarn Warp Board, Carding Machine, Hot Melt Lamination, Solar Cooker, Microwave Oven, Refrigerator, Gas Stove.

Bulletin Board, Overhead Projector (OHP), Liquid Crystal Display (LCD), Flannel Board, Laptop.

Major Laboratory Stores/Consumables Required:

Cooking/kitchen equipment-Crockeries & Cutleries, Growth monitoring tools: baby scale, stadiometer, measuring tape, Developmental toys & learning materials, Charts/Models: Stages of life span, Prenatal development, Models or posters: Management process steps, Decision-making tree, Knitting needles, crochet hooks, braiding cords, Pins, scissors, measuring tape, needles, threads, Yarn samples (different types, thicknesses, twists), Posters, flip charts, pamphlets, Flashcards, charts, models (educational aids), Whiteboard, marker pens, stationery.

REFERENCE:

1. Corbman, P. B. Textiles: Fibres to Fabric. Gregg Division/McGraw Hill Book Co.
2. Devadas, Rajammal P. A Text Book on Child Development. McMillan India Ltd.
3. Dhahama, O. P., and O. P. Bhatnagar. Education and Communication for Development. Oxford and IBH Publishing.

4. Gupta, Sushma, Neeru Garg, and Renu Saini. Text Book of Clothing and Textiles. Kalyani Publishers.
5. Hurlock, Elizabeth B. Developmental Psychology. Tata McGraw Hill Publishing Company.
6. Mudambi, Sumati R., and Rajagopal. Fundamentals of Food and Nutrition. Wiley Eastern.
7. Mullick, Premalata. A Text Book of Home Science. Kalyani Publishers.
8. Ray, G. L. Extension Communication and Management. Naya Prokash.
9. Supe, S. V. An Introduction to Extension Education. Oxford and IBH Publishing.
10. The Educational Planning Group. Food and Nutrition. Arya Publishing House.
11. The Educational Planning Group. Home Management. Arya Publishing House.
12. Varghese, M. A., N. Ogalle, and K. Srinivasan. Home Management. Wiley Eastern Ltd.

CO-PSO mapping matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	
CO2	✓	✓			✓
CO3	✓	✓	✓	✓	✓
CO4	✓	✓	✓		
CO5	✓	✓	✓	✓	✓

MDC45HSC101(T)25: Introduction to Dietetics**Credit –(3)****Contact Hour – 45 Hrs.**

<i>Nature of Course</i>	MDC-1				
<i>Course Code</i>	MDC45HSC101a(T)25				
<i>Course Title</i>	Introduction to Dietetics				
<i>Course Level</i>	Level 100				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	3			3
<i>Course Audience</i>	Major Students enrolled in the FYUGP in Home Sciences				
<i>Proposed by (for Non- Core courses)</i>	No board of studies				
<i>Pre Requisites (if any)</i>	Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education.				
<i>Skill Training Required (if any)</i>	Diet Planning for different Diseases				
<i>Pre-Requisite Course Required (if any)</i>	10+2 Multi-Disciplinary				
<i>Faculty Eligibility and Specialization (if any)</i>	Master's Degree in Home Science specialised in Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education with Ph.D. and/or NET qualification will be preferred.				

Course Objectives:

The course aims to provide a foundational understanding of dietetics and the role of dietitians and nutritionists. It covers the classification and functions of nutrients, the concept of balanced diets, and recommended dietary allowances (RDA). Students will learn about nutritional needs during different life stages and the principles of therapeutic diets. The course also includes dietary modifications for various diseases and special feeding methods. Additionally, it focuses on public health nutrition and government programs to combat malnutrition.

Course Outcomes:

After completing this course, students will be able to:

- Explain the concepts and importance of dietetics, the role of dietitians and nutritionists, and the principles of balanced nutrition including RDA and food groups.

- Describe nutritional requirements and dietary guidelines across the human life cycle, including infancy, childhood, adolescence, adulthood, pregnancy, lactation, and old age.
- Apply the principles of diet therapy and identify dietary modifications required in therapeutic diets, including consistency and nutrient alterations.
- Analyse dietary management strategies for common diseases and metabolic disorders such as obesity, diabetes, cardiovascular conditions, and gastrointestinal issues.
- Understand public health nutrition initiatives and explain the role of national and international programmes and agencies in combating malnutrition and promoting community health.

UNIT – I: Introduction to Dietetics

Definition and importance of dietetics, Role of Dietician and Nutritionist. Basic Concepts of Nutrition, Nutrients – Classification, Functions, Food pyramid, Basic 5 food groups, RDA.

UNIT – II: Nutrition during the Life Cycle

Nutrition for various life cycles - infancy, childhood, adolescence, adulthood, geriatric nutrition, Nutrition related problems - PEM, Vit-A deficiency, Anaemia.

UNIT – III: Diet Therapy

Objectives of diet therapy, Factors affecting in planning therapeutic diets, Diet Modifications - clear fluid, full fluid, semi-solid, soft. Special feeding methods - intravenous feeding, tube feeding, parenteral feeding, pre & post-operative diets.

UNIT – IV: Dietary Modifications in Different Disease Conditions

Dietary management in – Obesity, Underweight, Cardiovascular diseases, peptic ulcer, diarrhoea, ulcerative colitis, constipation, dysentery, jaundice. Diet in fever, tuberculosis. Diet in metabolic disorders -Diabetes mellitus, Gout, Arthritis.

UNIT – V: Public Health Nutrition

Factors affecting health in a community, Assessment of nutritional status, Immunization, and its importance. Government programmes to combat malnutrition - ICDS, NMMP, Anaemia prophylaxis programme, Vit-A prophylaxis programme. International agencies combating malnutrition - WHO, FAO, UNICEF, CARE.

REFERENCES

1. Indian Council of Medical Research (ICMR). Nutrient Requirements and Recommended Dietary Allowances for Indians. National Institute of Nutrition (NIN), Hyderabad.
<https://www.nin.res.in/>
2. Joshi, S. A. Nutrition and Dietetics: With Indian Case Studies. 4th ed., McGraw Hill Education (India) Pvt. Ltd., 2019.

3. Mahan, L. K., and Sylvia Escott-Stump. Krause's Food, Nutrition and Diet Therapy. Saunders, 2004.
4. Park, K. Preventive and Social Medicine. 28th ed., Banarsidas Bhanot Publishers, 2025.
5. Robinson, C. H. Normal and Therapeutic Nutrition. Macmillan, 1990.
6. Srilakshmi, B. Dietetics. 8th ed., New Age International Publisher, 2021.
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9. The Educational Planning Group. Food and Nutrition. 3rd ed., Arya Publishing House, 1991.
10. UNICEF. Nutrition Programme Resources. <https://www.unicef.org/nutrition>
11. World Health Organization (WHO). Nutrition Guidelines and Resources. <https://www.who.int/health-topics/nutrition>

CO-PSO mapping matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓
CO2	✓	✓	✓		
CO3	✓	✓	✓		
CO4	✓		✓	✓	✓
CO5	✓	✓	✓		

MDC45HSC102(T)25: Parenting and Child Development

Credit –(3)

Contact Hour – 45 Hrs.

<i>Nature of Course</i>	MDC-1				
<i>Course Code</i>	MDC45HSC101b(T)25				
<i>Course Title</i>	Parenting and Child Development				
<i>Course Level</i>	Level 100				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	3			3
<i>Course Audience</i>	Major Students enrolled in the FYUGP in Home Sciences				
<i>Proposed by (for Non- Core courses)</i>	No board of studies				
<i>Pre Requisites (if any)</i>	Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education.				
<i>Skill Training Required (if any)</i>	1. Nurturing and Emotional Support 2. Communication & Social Skills 3. Positive Discipline & Boundaries				
<i>Pre-Requisite Course Required (if any)</i>	10+2 Multi-Disciplinary				
<i>Faculty Eligibility and Specialization (if any)</i>	Master's Degree in Home Science specialised in Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education with Ph.D. and/or NET qualification will be preferred.				

Course Objectives:

This course aims to provide a foundational understanding of child development and the role of parenting across life stages. It covers key principles of growth, influencing factors, and developmental challenges such as disabilities and mental health issues. Students will explore the impact of family, community, and socialization on a child's emotional, moral, and behavioural development. The course also examines various parenting styles, responsibilities, and their effects on child outcomes, including in special situations like single, adoptive, or grandparent-led families. Additionally, students will learn about parenting interventions, support systems, and the roles of government and NGOs in promoting healthy child development.

Course Outcomes:

After completing this course, students will be able to:

- Explain the principles, stages, and influencing factors of child development, and identify key challenges such as disabilities, trauma, and mental health issues.
- Analyse the role of family, community, and socialization agents in shaping emotional, moral, and behavioural development in children.
- Describe the meaning, types, and responsibilities of parenting, and evaluate its impact on various aspects of child development across life stages.
- Discuss the roles, challenges, and adaptations required in special parenting situations including single parenting, adoption, parenting with special needs, and non-traditional family structures.
- Identify and assess parenting intervention programs and support systems, and understand the role of government, NGOs, and ethical considerations in effective parenting support.

UNIT – I: Introduction to Child Development:

Child development- Definition,, Scope of Child Development, Principles of Growth and Development and its Influencing Factors, Stages of Child Development, Challenges in Child Development- disabilities, trauma and abuse, mental health issues.

UNIT – II: Role of Family and Community, Socialization in Child Development:

Meaning of family, community, Socialization, Significance of family and socialization, socialization agents in different developmental aspects- emotional support, modelling, behavioral, moral ethical developments, attachment and bonding, influence of community and the peers.

UNIT – III: Parenting and Child Development:

Meaning, importance, role and responsibilities of parenting, types of parenting and across different life stages, factors influencing parenting, impacts of parenting on child development- Physical and motor, Language, Emotional, Psychological, Social, Cognitive, Academic, Moral and ethical, Long-term life outcomes.

UNIT – IV: Parenting Roles in Special Situations:

Parenting in special situations- single and co-parenting, adoptive parenting, parenting with special needs, divorced or separated parents, parenting in conflict zones or displacement, grand parenting, skipped generation families, gender neutral parenting.

UNIT – V: Parenting Intervention and Programs:

Meaning,, benefits of Parenting Intervention, Types,, and models of effective parenting intervention programs, Implementation strategies, Parenting support systems, Education programs, Roles of Government and NGO, Ethical consideration in intervention.

REFERENCES:

1. Chaudhary, Nandita. Listening to Culture: Constructing Reality from Everyday Talk. Sage Publications, 2004.
2. Devadas, Rajammal P. A Text Book on Child Development. McMillan India Ltd.
3. Hurlock, Elizabeth B. Child Development. McGraw-Hill Education, 2001.
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5. Mangal, S. K. Advanced Educational Psychology. Prentice-Hall of India, 2005.
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CO-PSO mapping matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓		✓
CO2	✓	✓		✓	✓
CO3	✓	✓	✓	✓	✓
CO4	✓	✓	✓	✓	✓
CO5	✓	✓	✓	✓	✓

SEC45HSC101(T)25: Bakery and Quantity Cookery**Credit –(3)****Contact Hour – 45 Hrs.**

<i>Nature of Course</i>	SEC-1				
<i>Course Code</i>	SEC45HSC101a(T)25				
<i>Course Title</i>	Bakery and Quantity Cookery				
<i>Course Level</i>	Level 100				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	3			3
<i>Course Audience</i>	Major Students enrolled in the FYUGP in Home Sciences				
<i>Proposed by (for Non- Core courses)</i>	No board of studies				
<i>Pre Requisites (if any)</i>	Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education.				
<i>Skill Training Required (if any)</i>	1. Measurement accuracy, ingredient knowledge, baking techniques 2. Decorating and finishing				
<i>Pre-Requisite Course Required (if any)</i>	10+2 Home Science				
<i>Faculty Eligibility and Specialization (if any)</i>	Master's Degree in Home Science specialised in Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education with Ph.D. and/or NET qualification will be preferred.				

Course Objectives:

This course introduces students to the bakery industry in India, highlighting its scope, types of establishments, and growth trends. It covers the organizational structure of a bakery unit, including planning, layout, and resource management. Students will learn the scientific principles of baking, ingredient functions, and hygiene practices. Emphasis is placed on product quality, sensory evaluation, packaging, and regulatory standards. The course also explores quantity food production, recipe standardization, and financial management within both household and commercial bakery contexts.

Course Outcomes

After completing this course, students will be able to:

- Describe the structure, scope, and current status of the bakery industry in India and classify various baked products.
- Demonstrate knowledge of bakery unit organization, including layout planning, resource allocation, and staff responsibilities.

- Apply baking principles and techniques to produce a variety of bakery items while maintaining hygiene and quality standards.
- Evaluate bakery products based on sensory and nutritional criteria, and implement effective practices in quantity production and cost control.

UNIT – I: An Overview of Bakery Industry

Introduction to bakery industry in India; Types of food service establishments, Scope and growth rate of bakery industry; Current status of bakery industry in India; Classification of baked products.

UNIT – II: Organization of A Bakery Unit

Introduction, Organizational structure, planning, layout; Equipment, space, fuel management, waste disposal; Money, manpower, time, facilities, identifying resources; Functions of manager; Duties and responsibilities of production staff.

UNIT – III: The Baking Process

Basic baking principles, role of ingredients, guidelines; Flow of work, Changes that occur during mixing, blending, adjustments.; Hygiene and sanitation; Baking process-bread, bun, muffin, cakes, pastries, biscuits, chocolates, candies, toffees.

UNIT – IV: Quality Characteristics and Evaluation

Quality of materials, product quality characteristics, sensory evaluation; Nutritional quality, safety, storage, packaging; Product standards and regulations; Conducting a survey of local bakery production units and preparing a report.

UNIT – V: Quantity Food Production

Planning, purchasing, receiving, storage, preparation, service, delivery; Production forecasting, production scheduling; Financial management- Budget, Pricing of products-cost concept and analysis, costing methods; Household Vs commercial cake and bread making; Standardization of recipes, recipe adjustments, portion control; Effective utilization of leftovers.

REFERENCES:

1. Bali, Parvinder S. Quantity Food Production Operations and Indian Cuisine. Oxford University Press, 2011.
2. Dubey, S. C. Basic Baking. 5th ed., Chanakya Mudrak Pvt. Ltd., 2017.
3. Faridi, F. Dough Rheology and Baked Product Texture. CBS Publication, 2004.
4. Knight, J. B., and L. H. Kotschevar. Quantity Food Production, Planning and Management. 3rd ed., John Wiley & Sons, 2000.
5. Manay, S., and M. Shanaksharaswami. Foods: Facts and Principles. New Age Publishers, 2014.

6. Martz, Samuel A. Bakery Technology and Engineering. PAN-TECHI International Incorporated Pvt. Ltd., 2004.
7. Raina, Usha, et al. Basic Food Preparation: Complete Manual. 3rd ed., Orient Longman Pvt. Ltd., 2013.
8. Roday, S. Food Hygiene and Sanitation. Tata McGraw Hill Publishing Ltd., 2003.
9. Sethi, Mohini, and Surjeet Malhan. Catering Management: An Integrated Approach. 3rd ed., New Age International Pvt. Ltd., 2015.
10. Taneja, S., and S. L. Gupta. Entrepreneurship Development. Galgotia Publishing, 2001.

CO-PSO mapping matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓		✓		
CO2	✓	✓	✓		
CO3	✓	✓	✓		✓
CO4	✓	✓	✓	✓	✓

SEC45HSC102(T)25: Life Skill Education

Credit –(3)

Contact Hour – 45 Hrs.

<i>Nature of Course</i>	SEC-1				
<i>Course Code</i>	SEC45HSC101b(T)25				
<i>Course Title</i>	Life Skill Education				
<i>Course Level</i>	Level 100				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	3			3
<i>Course Audience</i>	Major Students enrolled in the FYUGP in Home Sciences				
<i>Proposed by (for Non- Core courses)</i>	No board of studies				
<i>Pre Requisites (if any)</i>	Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education.				
<i>Skill Training Required (if any)</i>	- Personality Development				
<i>Pre-Requisite Course Required (if any)</i>	10+2 Home Science				
<i>Faculty Eligibility and Specialization (if any)</i>	Master's Degree in Home Science specialised in Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education with Ph.D. and/or NET qualification will be preferred.				

Course Objectives:

This course aims to introduce students to the concept and significance of life skills and their relevance to everyday living. It covers a wide range of core life skill areas such as decision-making, communication, empathy, and stress management. Students will explore various techniques to develop and enhance these skills through interactive and creative activities. The course also emphasizes the role of communication in personal and social development. Finally, it examines the challenges faced by adolescents and youth and highlights the importance of life skills in achieving positive youth development.

Course Outcomes:

After completing this course, students will be able to:

- **Define** and **explain** key concepts related to life skills, their origins, and their relevance in daily life and youth development.
- **Demonstrate** core life skills such as problem-solving, critical thinking, effective communication, empathy, and coping strategies.

- **Apply** creative techniques like storytelling, role play, and debate to strengthen life skills in both personal and group settings.
- **Analyze** the challenges faced by youth and evaluate how life skills can support personal growth, identity formation, and career readiness.

UNIT – I: Introduction to Life Skill Education

Defining the Terms-Skills, Life Skills, Life Skills Education; Origins of Life Skills; Objectives of Life Skills; Importance of Life Skills in Our daily Living.

UNIT –II: Life Skill Areas

Problem Solving, Critical Thinking, Decision-Making; Creative Thinking, Interpersonal Relationship Skills, Effective Communication; Self-awareness Building Skills, Empathy, Coping with Stress Skills and Coping with emotions.

UNIT – III: Communication in Life Skills

Defining and Importance, Nature and Styles of Communication; Qualities of Good Communication Skills; Effective Communication Skills - Thinking, Listening, Speaking, Non-Verbal Communication.

UNIT –IV: Techniques Enhancing Life Skills

Discussion, Debate, Story Telling, Drama, Song and Dance, Role Play; Team Work, Poetry and Recitation and Miming.

Unit-5: Life Skills and Youth Development

Adolescence and Youth - Definitions, Conception-Socio-Cultural Perspective; Positive Youth Development - Meaning, Basics, Principles, Goals; Formal and Non-Formal Approaches to Youth Development; Challenges of Adolescence and Youth- Managing Emotions, Developing an identity, Resisting Peer Influence, building Relationship, Communicating and Negotiating Safer Life Situations, Education and Career, Role of Youth in Modern Society

REFERENCES:

1. Agochiya, Devendra. Life Competencies for Adolescents: Training Manual for Facilitators, Teachers and Parents. Sage Publications.
2. Peace Corps, OPATS. Life Skills Manual.
3. Singh, Daulet Bikkrama, and Rashmi Menon. Life Skills in India: An Overview and Current Practices in Our Education System.
4. World Health Organization. Life Skills Education: Planning for Research. WHO, 1996.

CO-PSO mapping matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓			✓
CO2		✓	✓		✓
CO3		✓	✓	✓	✓
CO4	✓	✓	✓	✓	✓

Note:-

Minor subjects can be taken as an option by the students of other discipline.

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FIRST YEAR
Semester-2

Course Structure:

Semester	Course		Title of the paper	Credit
	Category	Code		
II (SECOND) Level-100	Major	MJC45HSC102(T)25	Essentials of Home Science	3
		MJC45HSC102(P)25	Essentials of Home Science	1
	Minor	MNC45HSC102(T)25	Basics of Home Science	3
		MNC45HSC102(P)25	Basics of Home Science	1
	MDC	MDC45HSC102(T)25	Women and Development	3
	SEC	SEC45HSC102(T)25	Geriatric Care	2
		SEC45HSC102(P)25	Geriatric Care	1
	AEC			4
	VAC			2
	Total Credit			20

MJC45HSC102(T)25: ESSENTIALS OF HOME SCIENCE
Credit – (4)

Credit –(4)
Contact Hour – 45 Hrs.

<i>Nature of Course</i>	Major – 2				
<i>Course Code</i>	MJC45HSC102(T)25				
<i>Course Title</i>	Essentials of Home Science				
<i>Course Level</i>	Level-100				
<i>Credit Details</i>	Total Credit		Tutorial/Week	Practical/Week	Total Hours/Week
	4	3		1	4

Course Objectives

This course aims to provide fundamental knowledge and practical understanding in food preparation, human growth and behavioural development, family management, clothing construction, and extension teaching methods. It seeks to develop students' skills in applying scientific principles of cooking, understanding developmental stages and behavioural patterns,

managing family resources through motivation and goal setting, acquiring basic garment construction techniques, and using effective extension teaching methods and aids for community development. The course also aims to enhance analytical ability, practical competence, and professional skills in various areas of Home Science.

Course Outcomes

After successful completion of the course, students will be able to:

1. Explain principles and methods of food preparation, food transformation, and techniques to enhance nutritive value.
2. Describe stages, principles, and factors affecting human growth and behavioural development.
3. Apply concepts of motivation, values, goals, and standards in family resource management.
4. Demonstrate basic skills in clothing construction, sewing techniques, and maintenance of sewing machines.
5. Identify and apply appropriate extension teaching methods and teaching aids for effective communication and community outreach.

Unit I: Basic Concepts in Food Preparation:

Importance, Principles, Methods, Advantages, Disadvantages, and Safety precautions of cooking; Dry Heat Methods - Broiling or Grilling, Baking, Roasting; Moist Heat Methods - Boiling, Steaming; Cooking Under Pressure ; Fat-Based Methods - Dry Frying, Shallow Frying, Deep Frying; Modern Methods-Microwave Cooking ; Food Transformation- Physical and Chemical changes in food during preparation (Colour, Texture, Flavour); Techniques for enhancing the nutritive value of foods.

Unit II: Unit- II: Human Growth and Behavioural Development:

Concept and definitions of growth and development; differentiation between growth and development. Fundamental principles of human development. Stages of growth and corresponding behavioural changes. Various domains of development. Nature and aspects of behavioural development. Major theories of human development. Determinants of growth and behaviour. Characteristics and significance of the study of human growth and behavioural development.

Unit III: Motivation in Family Management:

Family- meaning, concept, types, and stages of the family life cycle; Motivation- definition, formation, types, and significance of motivation in management, Motivation theories. Motivating factors of resources: Values- concept, characteristics, types, sources, and formation of family values; Goals- concept, types, major family goals, goal setting, and changing goals; and Standards- concept, classification, standard of living, and interrelationship between values, goals, and standards.

Unit IV: Basics of clothing construction:

Terminology related to clothing construction, Sewing tools and accessories, Care and maintenance of sewing machine. Common sewing machine troubles (causes and remedies), Different types of basic stitch (Tacking, Running, Hamming, backstitch, blanket stitch, buttonhole stitch) and Seam (plain, French, Lapped, flat-felled, counter-hem seam) and their uses in different garment. Introduction to clothing: Definition, Importance and socio-economic and cultural function of clothing.

Unit V: Extension Teaching Methods and Aids:

Definition of Extension Teaching methods, Steps in Extension Teaching, Selection of effective Extension teaching methods, Different types of Approaches: Individual, Group and Mass Approach. Farm and Home visit, Personal letters, Office calls, Discussion method, Demonstration, General meetings - their advantages and disadvantages; Classification of Teaching Aids - Visual, Audio and Audio - Visual aids. Projected and non - projected aids.

PRACTICAL**MJC45HSC102(P)25****Credit –(1)****Contact hour – 30 Hrs.**

1. Food preparations using different methods of cooking and understanding the principles involved nutritional quality and portion size in it.
2. Case study on children growth patterns, behavioural development, developmental milestones in a nearby kids care centre.
3. Preparation of smart goal plans of an individual or a family.
4. Construction of different types of basic and seam stitches.
5. Conduct a visit to rural area to find out problems related health and nutrition.

List of Essential Major Equipment: The essential major equipment required for the laboratory includes gas stoves with LPG cylinders, hot plates or induction cooktops, OTG or microwave ovens, refrigerators, mixer grinders, digital weighing balances, pressure cookers, steamers, water purifiers, working tables, storage cupboards, sewing machines, ironing boards, and basic anthropometric instruments for growth assessment.

Major Laboratory Stores/Consumables Required: The major laboratory stores and consumables required include food ingredients such as cereals, pulses, vegetables, fruits, milk, oils, spices, and baking materials; textile materials such as fabrics, threads, needles, buttons,

zippers, and pattern papers; and fieldwork materials such as questionnaires, record sheets, and stationery for documentation and presentation.

References:

1. Devadas, Rajammal P. *A Text Book on Child Development*. McMillan India Ltd.
2. Doongali, S. & Deshpande, R. *Basic Process and Clothing Construction*, New Delhi, Raj Prakashan, 1990
3. Gopalan C., Rama Sastry B.V., and S.C. Balasubramanian, 2009, *Nutritive value of Indian food*, NIN, ICMR, Htderebad.
4. Hurlock, Elizabeth B. *Developmental Psychology*. Tata McGraw Hill Publishing Company.
5. Mansfield, Evelyn A., *Clothing Construction*, New York, McGraw-Hill Book Company, 1973
6. Mathews, Mary, *Practical Clothing Construction*, New Delhi, Cosmic Press, 2025
7. Mudambi SR and Rajagopal M.V., *Fundamentals of food, Nutrition and diet therapy* by New International Publishers, New Delhi.
8. Mullick, Premrata. *A Text Book of Home Science*. Kalyani Publishers.
9. Rathore, O. S., L. L. Somani, et al. *Handbook of Extension Education*. 5th ed., Agrotech Publishing Academy.
10. Supe, S. V. *An Introduction to Extension Education*. Oxford and IBH Publishing.
11. Sushma Gupta, Neeru Garg, Amita Aggrarwal, 2006, *Text Book of Food and Nutrition and Child Development*, Kalyani Publisers, Ludhiana, New Delhi, Hyderabad.
12. The Educational Planning Group. *Home Management*. Arya Publishing House.
13. Varghese, M. A., N. Ogalle, and K. Srinivasan. *Home Management*. Wiley Eastern Ltd.

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4
CO1	✓	✓		
CO2	✓	✓		✓
CO3	✓	✓		✓
CO4	✓		✓	
CO5	✓	✓	✓	✓

MNC45HSC102(T)25: BASICS OF HOME SCIENCE

Credit – (4)

Credit –(4)

Contact Hour – 45 Hrs.

<i>Nature of Course</i>	Minor– 2				
<i>Course Code</i>	MNC45HSC102(T)25				
<i>Course Title</i>	Basics of Home Science				
<i>Course Level</i>	Level-100				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	4	3		1	4

Course Objectives

This course aims to provide fundamental knowledge and practical understanding in food preparation, human growth and behavioural development, family management, clothing construction, and extension teaching methods. It seeks to develop students' skills in applying scientific principles of cooking, understanding developmental stages and behavioural patterns, managing family resources through motivation and goal setting, acquiring basic garment construction techniques, and using effective extension teaching methods and aids for community development. The course also aims to enhance analytical ability, practical competence, and professional skills in various areas of Home Science.

Course Outcomes

After successful completion of the course, students will be able to:

1. Explain principles and methods of food preparation, food transformation, and techniques to enhance nutritive value.
2. Describe stages, principles, and factors affecting human growth and behavioural development.
3. Apply concepts of motivation, values, goals, and standards in family resource management.
4. Demonstrate basic skills in clothing construction, sewing techniques, and maintenance of sewing machines.
5. Identify and apply appropriate extension teaching methods and teaching aids for effective communication and community outreach.

Unit I: Basic Concepts in Food Preparation:

Importance, Principles, Methods, Advantages, Disadvantages, and Safety precautions of cooking; Dry Heat Methods - Broiling or Grilling, Baking, Roasting; Moist Heat Methods - Boiling, Steaming; Cooking Under Pressure ; Fat-Based Methods - Dry Frying, Shallow Frying, Deep Frying; Modern Methods-Microwave Cooking ; Food Transformation- Physical and Chemical

changes in food during preparation (Colour, Texture, Flavour); Techniques for enhancing the nutritive value of foods.

Unit II: Unit- II: Human Growth and Behavioural Development:

Concept and definitions of growth and development; differentiation between growth and development. Fundamental principles of human development. Stages of growth and corresponding behavioural changes. Various domains of development. Nature and aspects of behavioural development. Major theories of human development. Determinants of growth and behaviour. Characteristics and significance of the study of human growth and behavioural development.

Unit III: Motivation in Family Management:

Family- meaning, concept, types, and stages of the family life cycle; Motivation- definition, formation, types, and significance of motivation in management, Motivation Theories. Motivating factors of resources: Values- concept, characteristics, types, sources, and formation of family values; Goals- concept, types, major family goals, goal setting, and changing goals; and Standards- concept, classification, standard of living, and interrelationship between values, goals, and standards.

Unit IV: Basics of clothing construction:

Sewing tools and accessories, Common sewing machine troubles (causes and remedies), Care and maintenance of sewing machine. Different types of basic stitch (Tacking, Running, Hamming, backstitch, blanket stitch, buttonhole stitch) and seam (plain, French, Lapped, flat-Felled) and their uses in different garment. Introduction to clothing: Definition, Importance and socio-economic and cultural function of clothing.

Unit V: Extension Teaching Methods and Aids:

Definition of Extension Teaching methods, steps in Extension Teaching, Selection of effective Extension teaching methods, Different types of Approaches: Individual, Group and Mass Approach. Farm and Home visit, Personal letters, Office calls, Discussion method, Demonstration, General meetings - their advantages and disadvantages · Classification of Teaching Aids - Visual, Audio and Audio - Visual aids.

PRACTICAL
MNC45HSC102(P)25

Credit –(1)
Contact hour – 30 Hrs.

1. Food preparations using different methods of cooking and understanding the principles involved nutritional quality and portion size in it.
2. Case study on children growth patterns, behavioural development, developmental milestones in a nearby kids care centre.
3. Preparation of smart goal plans of an individual or a family.
4. Construction of different types of basic and seam stitches.
5. Conduct a visit to rural area to find out problems related health and nutrition.

List of Essential Major Equipment: The essential major equipment required for the laboratory includes gas stoves with LPG cylinders, hot plates or induction cooktops, OTG or microwave ovens, refrigerators, mixer grinders, digital weighing balances, pressure cookers, steamers, water purifiers, working tables, storage cupboards, sewing machines, ironing boards, and basic anthropometric instruments for growth assessment.

Major Laboratory Stores/Consumables Required: The major laboratory stores and consumables required include food ingredients such as cereals, pulses, vegetables, fruits, milk, oils, spices, and baking materials; textile materials such as fabrics, threads, needles, buttons, zippers, and pattern papers; and fieldwork materials such as questionnaires, record sheets, and stationery for documentation and presentation.

References:

1. Devadas, Rajammal P. *A Text Book on Child Development*. McMillan India Ltd.
2. Doongali, S. & Deshpande, R. *Basic Process and Clothing Construction*, New Delhi, Raj Prakashan, 1990
3. Gopalan C., Rama Sastry B.V., and S.C. Balasubramanian, 2009, *Nutritive value of Indian food*, NIN, ICMR, Htderebad.
4. Hurlock, Elizabeth B. *Developmental Psychology*. Tata McGraw Hill Publishing Company.
5. Mansfield, Evelyn A., *Clothing Construction*, New York, McGraw-Hill Book Company, 1973
6. Mathews, Mary, *Practical Clothing Construction*, New Delhi, Cosmic Press, 2025
7. Mudambi SR and Rajagopal M.V., *Fundamentals of food, Nutrition and diet therapy* by New International Publishers, New Delhi.

8. Mullick, Premalata. *A Text Book of Home Science*. Kalyani Publishers.
9. Rathore, O. S., L. L. Somani, et al. *Handbook of Extension Education*. 5th ed., Agrotech Publishing Academy.
10. Supe, S. V. *An Introduction to Extension Education*. Oxford and IBH Publishing.
11. Sushma Gupta, Neeru Garg, Amita Aggarwal, 2006, Text Book of Food and Nutrition and Child Development, Kalyani Publisers, Ludhiana, New Delhi, Hyderabad.
12. The Educational Planning Group. *Home Management*. Arya Publishing House.
13. Varghese, M. A., N. Ogalle, and K. Srinivasan. *Home Management*. Wiley Eastern Ltd.

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4
CO1	✓	✓		
CO2	✓	✓		✓
CO3	✓	✓		✓
CO4	✓		✓	
CO5	✓	✓	✓	✓

MDC45HSC102(T)25: WOMEN AND DEVELOPMENT (Credit-3)

Credit –(3)

Contact Hour – 45 Hrs.

<i>Nature of Course</i>	MDC– 2				
<i>Course Code</i>	MDC45HSC102(T)25b				
<i>Course Title</i>	Women And Development				
<i>Course Level</i>	Level-100				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	3			3

Course Objectives: This course provides an understanding of the key concepts and dimensions of women and development. It examines gender roles, inequality, the status of women, and indicators such as HDI and GDI. The course explores historical and theoretical perspectives, including women’s movements and major feminist approaches, and reviews policy frameworks and institutional mechanisms for women’s development. It also analyses women’s participation in the economy, workplace challenges, and economic empowerment initiatives. Finally, it addresses

social dimensions such as education, health, violence against women, legal protections, and the role of awareness and support systems in promoting women's empowerment.

Course Outcomes

After successful completion of the course, the student will be able to:

1. Explain the key concepts of women and development, gender roles, inequality, and indicators such as HDI and GDI.
2. Analyse historical and theoretical perspectives of women's movements and major feminist approaches at national and global levels.
3. Examine constitutional provisions, policies, programmes, and institutional mechanisms supporting women's development.
4. Evaluate women's participation in the economy, including labour force involvement, wage gaps, workplace challenges, and empowerment initiatives.
5. Assess the social dimensions of women's development, including education, health, violence against women, legal safeguards, and the role of awareness in promoting empowerment.

Unit I: Conceptual Framework of Women and Development: Concept of development, Meaning and scope of women and development, Gender roles and gender socialisation, Gender inequality and discrimination, Status of women in society, Indicators of women's development, Human Development Index (HDI) and Gender Development Index (GDI).

Unit II: Historical and Theoretical Perspectives: Women's movement in India, Women's movements at global level- Liberal feminism, Ecofeminism, Radical feminism and Intersectionality , Critique of traditional development theories from a gender perspective.

Unit III: Policy framework and Institutional Mechanisms: Directive Principles of State policy, Special Provisions for women, National policies and Programmes for women's Development, Role of government agencies, NGOs, and International Organisations in promoting women's Development.

Unit IV: Women in Economy and Work: Women's Participation in the labour force, Women in formal and informal sector, unpaid work, care economy, Gender wage gap and employment discrimination at workplace, Challenges faced by working women, Women's entrepreneurship, skill development, self- help groups, and economic empowerment initiatives.

Unit V: Social Dimensions of Women's Development: Women and Education- Assess, enrolment and equality, Women and Health- Reproductive Health, Maternal Health, Nutrition and mental well- being. Violence against women- Domestic violence, Sexual violence, Trafficking and

Cyber violence. Legal measures for women's protection, Role of Education, Awareness and social support system in promoting women empowerment.

References:

1. Desai, Neera & Thakkar, Usha (2001). Women in Indian Society. National Book Trust, New Delhi.
2. International Labour Organization (ILO). Global Wage Report, Women at Work Report.
3. Kabeer, Naila (2011). Women's Economic Empowerment and Inclusive Growth. IDRC.
4. Kapoor, Promilla (2000). Empowering the Indian Women. Publications Division, Govt. of India.
5. Krishnaraj, Maithreyi & Deshpande, Ashwini (2010). Gender Dimensions of Economic Reforms in India. Oxford University Press.
6. Kumar, Radha (1993). The History of Doing: An Illustrated Account of Movements for Women's Rights in India. Zubaan.
7. National Sample Survey Office (NSSO). Reports on female labour force participation.

CO–PSO Mapping Matrix

CO / PSO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓			✓
CO2	✓	✓			✓
CO3	✓		✓		✓
CO4	✓	✓	✓	✓	
CO5	✓	✓	✓		✓

SEC45HSC102(T)25: GERIATRIC CARE
(Credit-3)

Credit –(3)

Contact Hour – 45 Hrs.

<i>Nature of Course</i>	SEC- 2				
<i>Course Code</i>	SEC45HSC102(T)25				
<i>Course Title</i>	Geriatric Care				
<i>Course Level</i>	Level-100				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	4	3		1	4

Course Objectives: The course aims to provide students with a comprehensive understanding of geriatric care, including the physical, psychological, social, and emotional needs of the elderly. It introduces ageing as a natural biological process, explores common health problems, preventive care, and regular check-ups, and highlights the importance of mental health support. Students will learn about health care services, rehabilitative therapies, assistive devices, and the role of institutional, community, and government support systems in promoting the well-being of older adults. The course also emphasizes awareness, care, and support strategies to enhance the quality of life of the elderly in contemporary society.

Course Outcomes:

After completion of this course, students will be able to:

1. Explain the concept, scope, and significance of geriatric care and demographic trends of ageing.
2. Identify normal physical changes and common health problems associated with old age.
3. Analyze psychological, emotional, and social issues affecting the elderly.
4. Describe health care services, rehabilitative measures, and assistive devices used in geriatric care.
5. Examine institutional, community, and government support systems available for the elderly.

Unit-1: Introduction to Geriatric Care:

Meanings and Concept of Geriatric Care, Difference between gerontology and geriatric, Importance, need and significance of geriatric care in contemporary society, Concept of ageing as a natural biological process, Stages of old age, Demographic trends of ageing population.

Unit-II: Physical Changes and Health Problems in Old Age:

Normal physical changes associated with ageing- sensory changes, changes in body systems, Common health problems - arthritis, diabetes, hypertension, vision & hearing loss, mobility and physical limitation, Preventive health care and regular health check-ups.

Unit-III: Psychological, Social, and Emotional needs of the Elderly:

Psychological changes in Old Age: Cognitive changes, memory loss, dementia, Emotional problems among the elderly- loneliness, depression, anxiety, Family relationship and social isolation, abuse and neglect of elderly people, Retirement adjustment and dependency, Mental health support for elderly.

Unit-IV: Health Care and Support System in Geriatric Care:

Regular health check-ups and early detection of chronic diseases, Health education and awareness for common age-related diseases, medical management, hospital care and specialised geriatric services, Rehabilitative- Physiotherapy, occupational therapy, speech therapy, Assistive devices- walking stick, hearing aid, dentures.

Unit-V: Institutional, Community and Government Support system in Geriatric Care:

Old age home, Day care centres for the elderly, Geriatric wards in hospital, roles of NGOs, Self-help groups, Community health workers, social clubs and senior citizen association, Pension schemes, Health Insurance schemes, Government health programs for the elderly.

Practical
SEC45HSC102(P)25

Credit –(1)
Contact hour – 30 Hrs.

Practical

1. Case study of an elderly person's profile- age, health, status and family background.
2. Survey on health problems of elderly in nearby local area and old age home.
3. Nutritional Assessment of an elderly person and daily exercise plan.
4. Preparation of Low-cost Balanced Diet chart for elderly persons.
5. Organise an awareness program.
6. Study of Government schemes for senior citizens.

List of Essential Major Equipment:

Essential equipment includes adult weighing machine, digital BP apparatus, glucometer, thermometer, stethoscope, pulse oximeter, height scale, vision chart, wheelchair, walker, walking stick, hospital bed, and basic physiotherapy aids.

Major Laboratory Stores/Consumables Required:

Required consumables include gloves, masks, sanitizer, cotton, bandages, gauze, antiseptic solution, glucometer strips, record sheets, charts for health education, and counselling materials.

References:

1. Fillit, H. M., Rockwood, K., & Young, J. B. (Eds.). (2017). Brocklehurst's textbook of geriatric medicine and gerontology (8th ed.). Elsevier.
2. Gomez, L. M. (2016). Geriatric nursing. Jaypee Brothers Medical Publishers.
3. Kaur, S., Kishore, J., & Singh, A. (2018). Comprehensive textbook of elderly care. Century Publications.
4. Michel, J. P., & Beattie, B. L. (Eds.). (2017). Oxford textbook of geriatric medicine (3rd ed.). Oxford University Press.
5. Sharma, O. P. (2014). Geriatric care: A textbook of geriatrics and gerontology. Viva Books.

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4
CO1	✓			✓
CO2	✓	✓		
CO3		✓		✓
CO4	✓		✓	
CO5		✓		✓

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COURSE STRUCTURE FOR 2ND YEAR OF FYUP IN HOME SCIENCE

Semester	Major (Credit)	Minor (Credit)	MDC (Credit)	AEC (Credit)	SEC (Credit)	VAC (Credit)	Total Credits
III	Major – 3 (4) (Level 200) Major – 4 (4) (Level 200)	Minor – 3 (4) (Level 200 & above)	MDC – 3 (3)		SEC – 3 (3)	VAC – 3 (2)	20
IV	Major – 5 (4) (Level 200) Major – 6 (4) (Level 200) Major – 7 (4) (Level 200) Major – 8 (4) (Level 200)	Minor – 4 (4) (Level 200 & above)					20
Students exiting at 2 Year will be awarded Bachelor's Diploma after earning minimum credit in the concerned discipline provided the student earned additional 4 credits in work-based vocational courses offered during first year or second year summer internship or apprenticeship.							

SECOND YEAR

Semester-III

Course Structure:

Semester	Course		Title of the paper	Credit
	Category	Code		
III (THIRD) Level- 200	Major	MJC50HSC203(T)25	Family Meal and Life Cycle Nutrition	3
		MJC50HSC203 (P)25	Family Meal and Life Cycle Nutrition	1
	Major	MJC50HSC204 (T)25	Human Development: Middle Childhood and Adolescence	3
		MJC50HSC204 (P)25	Human Development: Middle Childhood and Adolescence	1
	Minor	MNC50HSC203 (T)25	Paediatric Age and Meal Management	3
		MNC50HSC203 (P)25	Paediatric Age and Meal Management	1
	MDC	MDC50HSC203 (T)25	Communication Skills in Extension Education	3
	SEC	SEC50HSC203 (T)25	Surface Ornamentation Techniques in Textiles and Apparel Design	2
		SEC50HSC203 (P)25	Surface Ornamentation Techniques in Textiles and Apparel Design	1
	VAC	From VAC Pool		
	Total Credit			20

MJC50HSC203(T)25: FAMILY MEAL AND LIFE CYCLE NUTRITION

Credit –(3)

Contact Hour – 45 Hrs.

<i>Nature of Course</i>	Major – 3				
<i>Course Code</i>	MJC50HSC203(T)25				
<i>Course Title</i>	Family Meal and Life Cycle Nutrition				
<i>Course Level</i>	Level-200				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	4	3		1	4

Course Objective

This course provides an understanding of foundational dietary standards, including RDA, EAR, and food guide tools and to comprehend physiological modifications and nutritional requirements during pregnancy and lactation. Additionally, students will learn to identify growth milestones and age-specific nutrient needs from infancy through school age. The course also enables students to analyze dietary shifts and psychological eating behaviors in adolescents and adults, as well as evaluate aging-related physiological changes and clinical dietary requirements for geriatrics.

Course Outcomes

After successful completion of the course, students will be able to:

1. Apply RDA guidelines and basic principles of family meal planning and dietary requirements.
2. Plan target diets addressing maternal nutrient demands and complications like gestational diabetes.
3. Design complementary feeding strategies for infants and corrective interventions for childhood malnutrition.
4. Assess adult nutritional requirements based on varying occupational activity levels.
5. Create modified, therapeutic diets managing age-related conditions like osteoporosis and cardiovascular changes.

Unit I: Fundamentals to Family Meal Management

Basic Concept and Purpose of Recommended Dietary Allowances (RDA) and Estimated Average Requirements (EAR); correct application of RDA in evaluating daily nutritional intake; Meaning and scope of meal planning and meal management; Objectives, Importance and Principles of meal planning; factors influencing family meal planning, a sample menu of a common meal.

Unit II: Nutrition during Pregnancy and Lactation

Pregnancy: Physiological changes, recommended weight gain, increase nutrient requirements and common health complications; Lactation: Physiology of lactation, hormonal regulation by prolactin and oxytocin, and nutrient requirements of lactating mothers.

Unit III: Nutrition during Infancy and Childhood

Infancy: Advantages of exclusive breastfeeding, formula feeding and timely introduction of complementary weaning foods; Preschool Children: Nutritional requirements, common feeding, picky eating and managing Protein-Energy Malnutrition (PEM); School-Age Children: Nutritional requirements, Importance of breakfast and planning nutritionally balanced school lunches.

Unit IV: Nutrition during Adolescence and Adulthood

Nutrition during Adolescence: Nutritional requirements, factors affecting dietary intake and food choices, eating disorder, common nutritional problems; Nutrition during Adulthood: Nutrient requirements according to age, sex and physiological activity, dietary considerations for sedentary, moderate, heavy workers, healthy eating practices and prevention of nutrition related lifestyle disorders.

Unit V: Geriatric Nutrition

Physiological Changes: Changes in body composition, basal metabolic rate and digestive function. Nutritional Concerns: Factors affecting food intake, dietary modifications, Principles of planning nutritionally adequate, easily digestible, palatable and economical meals.

PRACTICAL

MJC50HSC203(P)25

Credit-(1)

Contact hours-30 Hrs

1. Planning and preparation of standardized sample menus for different family members.
2. Planning and preparation of balanced meals for pregnant and lactating women.
3. Preparation of age-appropriate complementary foods and infant formulas.
4. Planning and preparation of balanced packed lunches box and snacks for preschool and school-age children.
5. Planning and preparation of balanced meals for adolescents and adulthood according to activity levels.

List of Essential Major Equipment

The essential major equipment required for the laboratory includes gas stoves with LPG cylinders, hot plates or induction cooktops, OTG or microwave ovens, refrigerators, mixer grinders, digital weighing balances, pressure cookers, steamers, water purifiers and basic anthropometric instruments for growth assessment.

Major Laboratory Stores/Consumables Required

The major laboratory stores and consumables required include food ingredients such as cereals, pulses, vegetables, fruits, milk, oils, spices and baking materials and fieldwork materials such as questionnaires, record sheets, and stationery for documentation and presentation.

References

1. Bamji, M. S., Krishnaswamy, K., & Brahman, G. N. V. (Eds.). (2025). Textbook of human nutrition. Oxford & IBH Publishing.
2. ICMR-NIN Expert Group. (2020). Nutrient requirements and recommended dietary allowances (RDA) for Indians: A report. Indian Council of Medical Research National Institute of Nutrition.
3. Joshi, S. A. (2021). Nutrition and dietetics. McGraw Hill Education India.
4. Ministry of Women and Child Development. (2018). Poshan Abhiyaan resource materials. Government of India.
5. National Institute of Nutrition. (2024). Dietary guidelines for Indians (2nd ed.). Indian Council of Medical Research.
6. Srilakshmi, B. (2024). Dietetics. New Age International Publishers.
7. Srilakshmi, B. (2023). Nutrition science. New Age International Publishers.
8. Swaminathan, M. (1985). Advanced textbook on food and nutrition. Bangalore Press.

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓		
CO2	✓	✓	✓	✓	✓
CO3	✓	✓	✓	✓	✓
CO4	✓	✓	✓		
CO5	✓	✓	✓	✓	✓

MJC50HSC204(T)25: HUMAN DEVELOPMENT: MIDDLE CHILDHOOD AND ADOLESCENCE

Credit- (3)

Contact Hour- 45 Hrs

Nature of the Course	Major- 4				
Course Code	MJC50HSC204(T)25				
Course Title	Human Development: Middle Childhood and Adolescence				
Course Level	Level- 200				
Credit Details	Total Credit	Lecture/Week	Tutorial/Week	Practical/ Week	Total Hours/ Week
	4	3		1	4

Course Objective

The course provides a comprehensive understanding of human development during middle childhood and adolescence. It explores the physical, cognitive, emotional, social, and moral changes that shape children's and adolescents' abilities, personalities, self-concept, and identity. Students examine the influence of family, peers, school, culture, and society while recognizing individual differences and unique developmental needs. The course emphasizes health, nutrition, education, relationships, emotional well-being, and common developmental challenges. It develops sensitivity toward children and adolescents and promotes positive guidance, care, support, and healthy relationships. Ultimately, students learn to apply developmental knowledge in family, educational, and community settings to support healthy, balanced, and holistic development.

Course Outcomes

After successful completion of the course, students will be able to:

1. Understand the physical, cognitive, emotional, social, and moral development during middle childhood and adolescence.
2. Identify the developmental needs, characteristics, individual differences, and challenges faced by children and adolescents.
3. Recognize the influence of family, peers, school, culture, and society on their growth and development.
4. Understand the importance of health, nutrition, self-esteem, identity, relationships, and overall well-being during these stages.
5. Apply developmental knowledge to provide appropriate guidance, support, parenting, counselling, and promote healthy development.

Unit-I: Developmental Milestones during Middle Childhood

Meaning and characteristic of physical and motor development, developmental tasks, cognitive growths, transition to concrete operational thinking, Language development, vocabulary expansion and reading skills.

Unit-II: Socio-Emotional during Middle Childhood

Meaning, characteristics, developmental tasks, meaning of socialization, processes, role of family, school, environment and teachers, peer groups, acceptance, influences, friendship patterns, development of self-concept, moral reasoning and emotional self-regulation.

Unit-III: Understanding Adolescence

Meaning, definition, characteristic and development tasks of adolescence, stages of adolescence, physical and biological transitions- pubertal changes, growth spurt, primary and secondary sexual characteristics, importance of adolescence in human development.

Unit-IV: Psychological Development

Cognitive development- thinking and abstract reasoning, formal operational thought, decision-making, ego-centrism, identity formation- identity crises, self-concept, self-esteem, emotional development- mood changes, emotional regulation and mental health issues.

Unit-V: Social and Moral Development and Adjustment

Role of family, peers and society, peer pressure and relationship, behavioural problems, guidance, counselling and life skills for adolescents, importance of social and moral development, Erik Erikson's Psychosocial Theory, Kohlberg's theory of moral development.

PRACTICAL MJC50HSC204(P)25

**Credit- (1)
Contact Hour- 30 Hrs**

1. Observe and record the physical, social and moral development of a child (6–12 years) or an adolescent (13–18 years) using an observation schedule.
2. Prepare a developmental profile/case study of one middle childhood or one adolescent.
3. Prepare a chart or portfolio on developmental milestones and characteristics of middle childhood and adolescence.
4. Conduct an interview with a parent, adolescent on common developmental issues (peer pressure, discipline, study habits, emotional changes, etc.) and write a report.
5. Prepare poster, pamphlet or PowerPoint on topics such as adolescence, life skills, mental health.

List of Essential Major Equipment

The equipment required includes Anthropometric measuring scale/stadiometer, weighing machine, Measuring tape, Blood pressure monitor, Stethoscope, Stopwatch/timer, Audio-visual equipment/projector, Laptop/desktop computer, Camera/mobile device for observation and documentation, and First-aid kit.

Major Laboratory Stores/Consumables Required

Human development assessment kits, intelligence and personality tests, checklists, rating scales, questionnaires, educational toys, developmental materials, charts, posters, flash cards, case-study materials, reference books, manuals, practical records, A4/drawing sheets, demonstration materials, and stationery supplies (pens, pencils, colours, markers, glue, tape, files, printing materials, gloves, and tissues).

References

1. Gesell, A., & Ilg, F. L. (1949). Child development: An introduction to the study of human growth. Harper & Row.
2. Hurlock, E. B. (1978). Child growth and development (5th ed.). McGraw-Hill.
3. Hurlock, E. B. (1980). Developmental psychology: A life-span approach (5th ed.). McGraw-Hill.
4. Kaur, R. (2006). Adolescent Psychology: New Trends and Innovations. Deep & Deep Publications.
5. Konwar, I. H. & Boruah, A. S. (2021). Developmental Psychology: Child Psychology, Adolescence Psychology & Adult Psychology. EBH Publishers.
6. Mangal, S. K. & Mangal, Shubhra (2019). Child Psychology and Development. Sterling.
7. Papalia, D. E., Martorell, G., & Feldman, R. D. (2020). A child's world: Infancy through adolescence (14th ed.). McGraw-Hill.
8. Santrock, J. W. (2019). Adolescence. 17th ed. McGraw Hill.

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓			✓
CO2	✓	✓		✓	✓
CO3	✓	✓		✓	✓
CO4	✓	✓		✓	✓
CO5	✓	✓	✓	✓	✓

MNC50HSC203(T)25: PAEDIATRIC AGE AND MEAL MANAGEMENT

Credit –(3)

Contact Hour –45 Hrs.

<i>Nature of Course</i>	MNC– 3				
<i>Course Code</i>	MNC50HSC203(T)25				
<i>Course Title</i>	Paediatric Age And Meal Management				
<i>Course Level</i>	Level-200				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	4	3		1	4

Course Objective

The course aims to understand the growth and development of children at different ages and identify their nutritional needs. It helps in planning balanced, age-appropriate meals and promoting healthy eating habits. It also focuses on preventing nutritional deficiencies and supporting the child's overall growth, health, and development.

Course Outcomes

After successful completion of the course, students will be able to:

1. Understand the nutritional needs of children at different ages.
2. Plan balanced and age-appropriate meals for proper growth and development.
3. Learn appropriate feeding practices, portion sizes, and meal timings.
4. Identify and prevent common nutritional problems in children.
5. Apply principles of hygiene, food safety, and healthy meal management.
6. Develop skills to assess and meet the individual dietary needs of children.

Unit I: Paediatric Age, Growth and Development

Paediatric age groups from infancy to adolescence; growth and development; nutritional requirements at different stages; factors affecting growth and nutrition.

Unit II: Infant Feeding and Nutrition

Breastfeeding and colostrum; exclusive breastfeeding; complementary feeding and weaning; nutritional requirements of infants; common feeding problems.

Unit III: Meal Planning and Management for Children and Adolescents

Nutritional requirements of preschool, school-age children and teenagers; principles of meal planning; balanced diet; age-wise meal patterns; healthy snacks and tiffin; healthy food choices during adolescence.

Unit IV: Nutritional Problems and Dietary Management

Undernutrition, anaemia, vitamin and mineral deficiencies, obesity, food allergies and intolerances; dietary management during common childhood illnesses including diarrhoea and constipation.

Unit V: Food Safety and Practical Meal Management

Food hygiene and safety; food preparation and storage; nutritious and low-cost recipes; menu planning for different paediatric age groups; meal evaluation; practical meal management for children and adolescents.

PRACTICAL MNC50HSC203(P)25

Credit- (1)

Contact Hour- 30 Hrs

1. Identify the child's age group — newborn, infant, toddler, preschool, school-age and adolescent.
2. Assess nutritional needs according to the child's age, growth and activity level.
3. Plan a balanced meal containing carbohydrates, proteins, fats, vitamins, minerals and adequate fluids.
4. Prepare and serve food hygienically, using appropriate consistency, texture and portion size for the child's age.
5. Monitor growth and feeding — check weight/height, appetite, food intake and signs of malnutrition.

Essential Major Equipment

The laboratory requires equipment for paediatric assessment and meal management, including a baby weighing scale, infant meter, stethoscope, thermometer, BP apparatus, pulse oximeter, nebulizer, and kitchen weighing scale, measuring cups and spoons, stove, pressure cooker, cooking vessels, mixer/blender, and serving utensils.

Major Laboratory Stores/Consumables Required

Required consumables include growth assessment tools, record sheets, measuring instruments, cooking utensils, feeding aids, food ingredients, and hygiene materials such as gloves, aprons, soap, tissues, disinfectants, and garbage bags.

References

1. American Academy of Pediatrics. (2025). Pediatric nutrition (9th ed.). American Academy of Pediatrics.
2. Datta, P. (2018). Pediatric nursing (3rd ed.). Jaypee Brothers Medical Publishers.
3. Gupta, P. (2018). Essential pediatric nursing. CBS Publishers & Distributors.
4. Kalia, R. (2014). Textbook of pediatric nursing: South Asian edition. Elsevier.
5. Sharma, M. (2017). Pediatric nutrition in health and disease. Jaypee Brothers Medical Publishers.

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓			
CO2	✓	✓	✓		
CO3	✓	✓	✓		
CO4	✓	✓		✓	
CO5	✓	✓		✓	✓
CO6	✓	✓	✓	✓	✓

MDC50HSC203(T)25: COMMUNICATION SKILLS IN EXTENSION EDUCATION

Credit –(3)
Contact Hour – 45 Hrs.

<i>Nature of Course</i>	MDC – 3				
<i>Course Code</i>	MDC50HSC203(T)25				
<i>Course Title</i>	Communication Skills in Extension Education				
<i>Course Level</i>	Level-200				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	3	3			3

Course Objective

The course aims to develop students' understanding of the concepts, processes and principles of communication in extension education. It enables students to develop effective listening, speaking, reading, writing, presentation and interpersonal communication skills for working with rural communities. The course also focuses on identifying and overcoming communication barriers, building trust and rapport, and applying modern ICT and digital communication technologies for effective extension services.

Course Outcomes

After successful completion of the course, students will be able to:

1. Explain the concepts, processes, types and principles of communication and their application in extension education.

2. Demonstrate effective listening, speaking, reading, writing, presentation and interpersonal communication skills.
3. Apply questioning, interviewing, group discussion, public speaking, persuasion and motivation skills in extension activities.
4. Identify and overcome communication barriers using feedback, empathy, reinforcement, trust and rapport-building strategies.
5. Utilize ICT, mobile phones, social media and digital platforms for effective and participatory extension communication.

Unit-I: Fundamentals of Communication Skills

Meaning, definition, nature and importance of communication; elements of communication; communication process; types of communication; verbal and non-verbal communication; formal and informal communication.

Unit-II: Communication in Extension Education

Meaning and concept of extension communication; role and importance of communication in extension education; principles of effective extension communication; communication functions; extension teaching-learning process; communication flow in rural communities.

Unit-III: Essential Communication skills for Extensional Professionals

Listening skills; speaking skills; reading and writing skills; presentation skills; interpersonal communication; questioning and interviewing skills; group discussion; public speaking; persuasion and motivation.

Unit-IV: Barriers and Strategies for Effective Communication Skills

Physical, psychological, semantic, cultural and social barriers; language and literacy problems; perception and attitude; overcoming communication barriers; feedback and reinforcement; empathy; building trust and rapport with farmers and rural communities.

Unit-V: Modern Communication Technologies

ICT in extension education; mobile phones and social media; digital and online communication; video and audio-based extension; use of WhatsApp and other digital platforms; participatory communication.

References

1. Dahama, O.P. and Bhatnagar, O.P. *Education and Communication for Development*. Oxford & IBH Publishing Co., New Delhi.
2. Dubey, V.K & Indira, V., *Education and Communication*, New Age International (P) Limited Publishers, New Delhi
3. Ray, G.L. *Extension Communication and Management*. Kalyani Publishers, New Delhi.
4. Rogers, E.M. *Diffusion of Innovations*. Free Press, New York.
5. Van den Ban, A.W. and Hawkins, H.S. *Agricultural Extension*. Blackwell Science, Oxford.

6. Singh, R. *Communication and Extension Education*. Appropriate academic/reference edition as prescribed by the institution.
7. Rogers, E.M. and Kincaid, D.L. *Communication Networks: Toward a New Paradigm for Research*. Free Press, New York.
8. Berlo, D.K. *The Process of Communication: An Introduction to Theory and Practice*. Holt, Rinehart and Winston.
9. Kumar, B. and Hansra, B.S. *Extension Education for Human Resource Development*. Concept Publishing Company, New Delhi.

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓		✓	
CO2	✓	✓	✓	✓	✓
CO3	✓	✓	✓	✓	✓
CO4	✓	✓		✓	✓
CO5	✓	✓	✓	✓	

SEC50HSC203(T)25: SURFACE ORNAMENTATION TECHNIQUES IN TEXTILES AND APPAREL DESIGN

Credit –(2)
Contact Hour – 30 Hrs.

<i>Nature of Course</i>	SEC– 3				
<i>Course Code</i>	SEC50HSC203(T)25				
<i>Course Title</i>	Surface Ornamentation Techniques in Textiles and Apparel Design				
<i>Course Level</i>	Level-200				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	2		1	3

Course objective

The course aims to develop an understanding of the concepts, principles, techniques, and applications of surface ornamentation in textiles and garments. It seeks to develop practical skills in embroidery, decorative techniques, fabric printing, and painting using appropriate tools, materials, and methods. The course also encourages creativity and aesthetic appreciation through the application of elements of art, principles of design, motifs, and colour combinations. It further enables students to design and

develop textile products and garments using suitable ornamentation techniques, with proper care and maintenance.

Course Outcomes

After successful completion of the course, the students will be able to:

1. Explaining the concept, importance, classification, tools, equipment, and safety practices related to surface ornamentation.
2. Demonstrating proficiency in basic hand and machine embroidery techniques.
3. Applying various decorative textile by selecting suitable motifs, colours, materials, and stitches.
4. Demonstrating and differentiate fabric printing and painting techniques.
5. Developing and applying appropriate surface ornamentation techniques and care and maintenance of textile products.

Unit-1: Introduction to Surface ornamentation

Meaning, Concept, and Importance of Surface Ornamentation. Classification of techniques, (additive, subtractive and printed) Application of elements of arts and principle of design in Surface ornamentation. Tools and equipment used and safety rules in Surface Ornamentation.

Unit-II: Embroidery Techniques

Introduction and Scope of embroidery. Hand embroidery-Stem, Chain, Satin, Long and Short, French Knot, Bullion, Cross stitch and Lazy Daisy Stitch. Machine embroidery-Flat and Raised. Preparation of fabric, threads and design, placement and transfer techniques.

Unit-III: Decorative Techniques

Beadwork, Applique and Patch work, Aari work, Mirror work, Zari work, Quilting, Pleating, tucking and Smocking, Lace work. Study of motifs, colour selection of materials and stitches of a product.

Unit-IV: Fabric Printing and Painting techniques

Hand Printing techniques- Block, Stencil, and Screen Printing, Resist Printing- Tie and dye and Batik Printing. Fabric painting: Free hand, Spray and Stencilling Painting. Designing a product (garment, furnishing materials) using mixed ornamentation.

Unit-V: Product development and application

Selection of appropriate ornamentation for different garments. Application of surface ornamentation on different textile product (Bag, Cushion) and garment. Care and maintenance of surface ornamented products.

PRACTICAL
SEC50HSC203(P)25

Credit-(1)
Contact hour-30 Hrs

1. Samples preparation of different hand-embroidery stitches.
2. Preparation of samples of various decorative surface ornamentation techniques.
3. Preparation of fabric samples using different textile printing and fabric-painting methods.
4. Creating a scrapbook containing samples, descriptions, and illustrations of all the techniques covered.
5. Visit to textile-craft units and garment-designing centres to observe practical production processes, tools, materials, and design techniques.

Essential Major Equipment

Measuring and marking tools, cutting tools, embroidery frames and hoops, Aari hooks, printing blocks and screens, stencils, squeegees, dyeing vessels, wax pots, tjanting tools, fabric-painting brushes, palettes, spray bottles, irons, and ironing boards.

Major Laboratory Stores/Consumables Required

Fabrics, embroidery threads, sewing threads, needles, beads, mirrors, zari, lace, ribbons, appliqué and patchwork materials, batting, dyes, printing colours, fabric paints, wax, tracing paper, carbon paper, design sheets, brushes, sponges, and other decorative materials.

References

1. Bhatnagar, P. (2004). *Decorative designs and craft techniques*. Abhishek Publications.
2. Cheney, N., & McAllister, H. (2020). *Textile surface manipulation*. Herbert Press.
3. Crill, R. (1999). *Indian embroidery*. Prakash Book Depot.
4. Dhingra, R. P. (1998). *Embroidery*. Dhingra Publishing House.
5. Gillow, J., & Barnard, N. (1991). *Traditional Indian textiles*. Thames & Hudson.
6. Naik, S. D. (1996). *Traditional embroidery of India*. APH Publishing Corporation.
7. National Instructional Media Institute. *Surface ornamentation techniques – Embroidery: Trade theory*. National Instructional Media Institute
8. Reader's Digest Association. *Complete guide to sewing*. Reader's Digest Association.

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓			
CO2	✓	✓	✓		
CO3	✓	✓	✓		
CO4	✓	✓	✓		
CO5	✓	✓	✓	✓	✓

SECOND YEAR

Semester-IV

Course Structure:

Semester	Course		Title of the paper	Credit
	Category	Code		
IV (Fourth) Level-200	Major	MJC50HSC205(T)25	Management of Family Resources	3
		MJC50HSC205 (P)25	Management of Family Resources	1
	Major	MJC50HSC206 (T)25	Textile Finishing Process and Fabric Care	3
		MJC50HSC206 (P)25	Textile Finishing Process and Fabric Care	1
	Major	MJC50HSC207 (T)25	Extension Programme Planning and Communication	3
		MJC50HSC207 (P)25	Extension Programme Planning and Communication	1
	Major	MJC50HSC208 (T)25	Advanced Dietetics and Public Health Nutrition	3
		MJC50HSC208 (P)25	Advanced Dietetics and Public Health Nutrition	1
	Minor	MNC50HSC204(T)25	Family Resources, Textile Finishing & Extension Education	3
		MNC50HSC204(P)25	Family Resources, Textile Finishing & Extension Education	1
Total Credit				20

MJC50HSC205(T)25: MANAGEMENT OF FAMILY RESOURCES

Credit –(3)

Contact Hour – 45 Hrs.

<i>Nature of Course</i>	Major – 5				
<i>Course Code</i>	MJC50HSC205(T)25				
<i>Course Title</i>	Management of Family Resources				
<i>Course Level</i>	Level-200				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	4	3		1	4

Course Objective

The course aims to develop an understanding of effective management of time, energy and family income; equip learners with skills to prepare and manage family budgets, expenditure, savings, investments and credit; develop awareness of banking, financial instruments and digital payment systems; and promote informed, responsible and secure financial decision-making in the family and changing digital economy.

Course Outcomes

After successful completion of the course, students will be able to:

1. Apply principles and tools of time management in family activities.
2. Assess energy requirements, fatigue and work simplification in homemaking.
3. Prepare family income, expenditure plans and budgets for effective financial management.
4. Explain savings, investments, credit, loans, retirement and tax planning.
5. Demonstrate financial awareness, digital payment skills and safe practices against financial frauds.

Unit-I: Management of Time

Meaning, importance; time demands during different stages of the family life cycle; time cost; time plans-definition, importance, characteristics; factors to consider in making time and activity plans; control and evaluation of time plans tools in time management-peak loads, work curve, rest periods, leisure and emergency.

Unit-II: Management of Energy

Definition and concept of human energy; energy cost of household activities; relation of energy to the stages of the family life cycle; classification of effort required in homemaking activities; fatigue-types, causes, symptoms and methods to overcome fatigue; work simplification-definition, importance and techniques; Mundel's classes of change.

Unit-III: Family Income and Expenditure

Meaning, types and sources of family income; concept of total income; guidelines for money-income management; classification of income levels; needs and means of supplementing family income; expenditure-meaning and factors affecting family expenditure; guidelines for preparing an expenditure plan; principles of sound expenditure management; control of expenditure.

Unit-IV: Family Financial Planning and Management

Budgeting: meaning, importance, types, steps, factors and Engel's laws of consumption; household account keeping: meaning, importance and methods; savings: importance, types and institutions promoting savings; investment: need, types and principles; credit and loans: types, sources, secured and unsecured loans; retirement and tax planning.

Unit-V: Financial Awareness

Financial awareness – meaning and importance; banking system in India – structure and functions; financial instruments – cheques, demand drafts, bonds, certificates of deposit and equity shares; digital payment systems – meaning, importance and types; plastic revolution – debit cards, credit cards and prepaid cards; cyber security and safe digital practices; financial frauds (Ponzi schemes and unregistered investments); fin tech innovations and cashless economy.

PRACTICAL MJC50HSC205(P)25

**Credit-(1)
Contact hours-30 Hrs**

1. Preparation and evaluation of daily and weekly time plans for a college student.
2. Study of work simplification using a pathway chart.
3. Preparation of family budgets for different income groups.
4. Preparation of household cash book, ledger and balance sheet.
5. Study and identification of common banking instruments and practice of filling them correctly.

Essential Major Equipment

Specimen banking forms, calculators, computers/laptops, printer, weighing scale, stopwatch, measuring tape, and basic stationery.

Major Laboratory Stores/Consumables

Practical notebooks, worksheets, sample cheques, demand drafts, deposit and withdrawal slips, passbook specimens, ledger sheets, cash-book formats, budget sheets, chart papers, pens, pencils, rulers, erasers and printing paper.

References

1. Dorsey, J. M., & Nickell, P. (2017). *Management in Family Living*. Wiley Eastern Pvt. Ltd.
2. Mullik, P. (2019). *Home Management*. Kalyani Publishers, New Delhi.
3. Murali, S., & Subbakrishna, K. R. (2021). *Personal Financial Planning (Wealth Management)*. Himalaya Publishing House, Mumbai.
4. Paramasivan, C., & Subramanian, T. (2022). *Financial Management*. New Age International (P) Ltd., New Delhi.
5. The Educational Planning Group. (2018). *Home Management*. Arya Publishing House, New Delhi.
6. Varghese, M. A., Ogale, N., & Srinivasan, K. (2018). *Home Management*. Wiley Eastern Ltd

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓			
CO2	✓	✓	✓		
CO3	✓	✓	✓	✓	
CO4	✓		✓	✓	
CO5	✓	✓	✓	✓	✓

MJC50HSC206(T)25: TEXTILE FINISHING PROCESS AND FABRIC CARE

Credit –(3)
Contact Hour – 45 Hrs.

<i>Nature of Course</i>	Major – 6				
<i>Course Code</i>	MJC50HSC206(T)25				
<i>Course Title</i>	Textile Finishing Process and Fabric Care				
<i>Course Level</i>	Level-200				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	4	3		1	4

Course objective:

The course aims to develop a comprehensive understanding of textile finishing, dyeing, printing, stain removal, laundering, and storage of clothes. It enables learners to understand the meaning, need, importance, classification, and application of textile finishes. It acquires knowledge of different dyeing methods as well as resist and printing techniques. The course enables to understand the principles, classification, and techniques of stain removal from different fabrics, develop skills in selecting appropriate cleaning agents, materials, laundering methods of different fabrics. Further the

course seeks to understand the principles, factors, and techniques involved in the proper storage of different types of clothing to maintain their appearance, quality, durability, and service life.

Course Outcomes

After completion of the course, students will be able to:

1. Explain the importance, classification and application of various textile finishing processes.
2. Identify suitable dyeing and printing methods for different fabrics and apply basic techniques appropriately.
3. Identify different types of stains and select suitable methods for their safe and effective removal.
4. Demonstrate appropriate laundering methods for cotton, wool, silk and synthetic fabrics using suitable cleaning agents and equipment.
5. Apply proper storage, folding, hanging, rolling and packing techniques to preserve different types of garments and extend their service life.

Unit-I: Introduction to textile finishing process

Meaning, Need, importance of textile finishing. Classification of textile finishes-Temporary, Permanent, Durable and Semi-durable. Chemical and Mechanical Finishes-Chemical finishes-Scouring, Bleaching, Mercerization, Crease resistance, Fireproof, Waterproof, Anti-microbial finish and Stiffening finish. Mechanical finishes: Calendaring, Beetling, Sanforising, Embossing, Glazing and Napping.

Unit-II: Dyeing and Printing

Dyeing-meaning, classification and methods of dyeing. Preparation of textile materials for dyeing. Suitability of different dyes on different fabrics. – (cotton, silk and wool) Resist dyeing (Tie and dye, Batik) Printing-meaning, preparation of printing paste. Methods and equipment-Stencil, Screen, Block, Eco printing, Roller and Discharge Printing.

Unit-III: Stain Removal

Meaning, Definition, Classification of Stain. Principles, needs and importance of Stain removal. General rules and ways of Stain removal. Methods and techniques of Stain removal of different fabrics.

Unit-IV: Laundering of different fabrics

Meaning, Principles, materials and equipment used in laundering. Cleaning agents, Properties and effects of Soap and detergents on cleaning of different fabrics. Laundering Process of Cotton, Wool, Silk and Synthetic garments.

Unit-V: Storage of Clothes

Concept, importance and principles of storage of clothes. Factors affecting the life of clothing. Methods of storing of different types of garments (cotton, silk, woollen, synthetic and delicate

garments). Storage of clothing (weekly, monthly and Seasonal) Techniques of storage of clothes (Folding, hanging, rolling and Packing techniques).

PRACTICAL
MJC50HSC206(P)25

Credit-(1)
Contact hours-30 Hrs

1. Finishing of cotton fabric using scouring, bleaching, and Mercerization.
2. Dyeing and printing of cotton fabric using different methods-plain dyeing, tie and dye, batik, block, screen, and stencil.
3. Removal of different stain from fabrics surface.
4. Preparation of soap and detergents for household used.
5. Visit a textile dyeing and printing unit and writing a visit report.

List of Essential Major Equipment

Chemicals, detergent/wetting agent, distilled water and filter paper water bath, hot plate, beakers, measuring cylinders, and drying oven, scissors, forceps, gloves, aprons, masks, brushes, buckets, laundry tub, water containers, measuring equipment, tongs, thermometers, safety/fire-control equipment, drying rack, iron and ironing board, packing bags and vacuum storage bags.

Major laboratories stores/consumable materials

Water bath, washing machine, hot plate, balance, glassware, fabric samples, dyes, detergents, stain-removal chemicals, printing screens/blocks/stencils, irons and basic storage equipment. Screen-printing table, natural-dye setup, batik equipment, fabric-finishing apparatus gas stove, fabrics, dyes, wax, Soap and Detergents, chemicals for stain removals, Chemicals.

References

1. Aspland, J. R. (2022) Textile Dyeing and Coloration. AATCC Press.
2. Choudhury, A. K. R. (2006) Textile Preparation and Dyeing. Oxford & IBH Publishing.
3. Corbman, B. P. (2020) Textiles: Fiber to Fabric. McGraw-Hill.
4. Dantyagi, S. (2020) Fundamentals of Textiles and Their Care. Orient Longman.
5. Gopalakrishnan, D, S. Kavitha Textile and Vinayagamurthi, P. (2018) Textile Finishing: Basic Concepts and Application. Manglam
6. Joseph, M. L. (2012) Essentials of Textiles. Holt, Rinehart and Winston.
7. Parthiban, M. and Srikrishnan, M.R. (2020) Apparel Finishing and Clothing Care. Woodhead Publishing India
8. Schindler, W. D., & Hauser, P. J. (2004) Chemical Finishing of Textiles. Woodhead Publishing.
9. Seema, S. (2022) Textbook of Fabric Science: Fundamentals to Finishing PHI Learning Pvt Ltd
10. Trotman, E. R. (2022) Dyeing and Chemical Technology of Textile Fibres. Charles Griffin & Company.
11. Vigo, T. L. (1997) Textile Processing and Properties: Preparation, Dyeing, Finishing and Performance. Elsevier.

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓		
CO2	✓	✓	✓	✓	
CO3	✓	✓	✓	✓	
CO4	✓	✓	✓	✓	✓
CO5	✓	✓	✓	✓	✓

MJC50HSC207(T)25: EXTENSION PROGRAMME PLANNING AND COMMUNICATION

Credit –(3)

Contact Hour – 45 Hrs.

<i>Nature of Course</i>	Major –7				
<i>Course Code</i>	MJC50HSC207(T)25				
<i>Course Title</i>	Extension Programme Planning and Communication				
<i>Course Level</i>	Level-200				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	4	3		1	4

Course Objective

The course aims to develop an understanding of the process of extension programme planning and enable students to identify the needs and problems of individuals, families, and communities. It helps students formulate objectives and prepare simple extension programme plans while developing skills in planning activities, resources, time, and budget. The course also equips students with skills for implementing, managing, monitoring, and evaluating extension programmes and encourages the application of Home Science knowledge to address community needs and problems.

Course Outcomes

After completion of the course, students will be able to:

1. Identify and analyze the needs and problems of individuals, families and communities.
2. Prioritize community needs and formulate suitable extension programme objectives.
3. Prepare a simple extension programme with activities, resources, time schedule and budget.
4. Prepare simple tools for monitoring and evaluation.
5. Assess the outcomes of an extension programme and prepare a report.
6. Apply Home Science knowledge in planning community-oriented extension programmes.

Unit-I: Extension Programme Planning

Programme planning: Meaning, concept, importance, principles, characteristics, and steps. Goals and objectives: Meaning, types, characteristics, and writing measurable objectives. Resources: Human, material, financial, and local resources. Budget Planning: preparation of a simple budget, Programme Proposal: Components of a simple extension programme proposal.

Unit-II: Community Needs and Problem Identification

Concept and characteristics of communities; role of Home Science in community development. Community needs: Meaning, types- felt and expressed needs, individual, family and community needs; Need assessment. Meaning and purpose, Sources of information: primary and secondary assessment, Identification and Prioritization of problems.

Unit- III: Communication for Extension Programmes

Communication in extension programmes; target audience identification; selection of communication approaches and strategies. Communication for awareness and behaviour change. Meaning and purpose of campaigns; communication channels, scheduling, and evaluation of campaign.

Unit-IV: Implementation and Management of Extension Programmes

Programme Implementation: Meaning and importance, Preparation for implementation, Sequence of activities, Role and responsibilities of extension workers, Participation of community members, Programme Management and its steps, community participation: importance of participation, Resource Management, Documentation and Reporting

Unit-V: Monitoring and Evaluation of Extension Programmes

Monitoring: Meaning and importance, activities, participation, simple monitoring checklist, Evaluation: meaning and importance, Monitoring and evaluation: basic distinction, Process evaluation, Outcome evaluation, Pre-test and post-test, Beneficiary feedback, Evaluation Indicators and Methods, Reporting and Follow-up.

PRACTICAL MJC50HSC207(P)25

**Credit-(1)
Contact hours-30 Hrs**

1. Developing a plan and conducting an extension programme in a selected village.
2. Preparation of extension teaching materials - leaflet, pamphlet, poster or fact sheet.
3. Conducting a group discussion on selected issues for urban and rural communities
4. Conducting a field visit to identify community health problems.
5. Preparing a simple budget plan and extension programme report.

Essential Major Equipment

Laptop/Desktop computer, multimedia/LCD projector, projection screen, printer, scanner/multifunction printer, digital camera, portable speaker, digital voice recorder, laminator, binding machine, whiteboard/display board, paper cutter, flip chart stand, tripod, Wi-Fi/router facility, power bank, rechargeable emergency light, portable projector, and document camera.

Major Laboratory Stores/Consumables Required

Chart paper, A4/bond paper, coloured paper, markers, pens, pencils, clipboards, practical files, folders, sticky notes, index cards, glue, scissors, adhesive tapes, printed questionnaires, monitoring checklists, pre-test/post-test forms, beneficiary feedback forms, attendance sheets, pamphlets, handouts, poster-making materials, measuring tape, display board, and printing/photography paper.

References

1. Dahama, O.P. & Bhatnagar, O.P. (1985). *Education and Communication for Development*. 2nd ed., New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
2. Ray, G.L. (1991). *Extension Communication and Management*. Calcutta: Naya Prakash.
3. Dubey, V.K & Indira, V., *Education and Communication*, New Age International (P) Limited Publishers, New Delhi
4. Supe, S.V. (1983). *An Introduction to Extension Education*. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
5. Reddy, A.A. (1987). *Extension Education*. Guntur, Andhra Pradesh: Sree Lakshmi Press.
6. Singh, K.M. *Fundamentals of Extension Education*.
7. Rogers, E.M. (1995). *Diffusion of Innovations*. 4th ed., New York: The Free Press.
8. Berlo, D.K. (1960). *The Process of Communication: An Introduction to Theory and Practice*. New York: Holt, Rinehart and Winston.
9. FAO. *Selected publications relating to extension, community participation and development communication*. Rome: Food and Agriculture Organization of the United Nations.
10. Government of India. *Relevant publications relating to nutrition, health, women and child development, and community development*. New Delhi: Government of India

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓		✓	
CO2	✓	✓	✓	✓	
CO3	✓	✓	✓	✓	✓
CO4		✓	✓	✓	
CO5		✓	✓	✓	✓
CO6	✓	✓	✓	✓	✓

MJC50HSC208(T)25: ADVANCED DIETETICS AND PUBLIC HEALTH NUTRITION

Credit –(3)

Contact Hour – 45 Hrs.

<i>Nature of Course</i>	Major –7				
<i>Course Code</i>	MJC50HSC208(T)25				
<i>Course Title</i>	Advanced Dietetics and Public Health Nutrition				
<i>Course Level</i>	Level-200				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	4	3		1	4

Course Objective

This course aims to understand the principles of therapeutic nutrition and diet modification, develop knowledge of the dietary management of chronic metabolic disorders and understand the dietary management of gastrointestinal, liver and renal disorders. Additionally, it focuses on identifying malnutrition and major nutritional deficiencies along with their management, while fostering an understanding of community nutrition programs, policies and practical nutrition interventions.

Course Outcomes

After completing the course, students will be able to:

1. Explain the principles of therapeutic nutrition and diet modification.
2. Plan appropriate therapeutic diets for common metabolic and chronic diseases.
3. Apply dietary management principles for gastrointestinal, liver and renal disorders.
4. Identify and manage major forms of malnutrition and nutritional deficiencies.
5. Demonstrate practical skills in therapeutic menu planning, nutrition education and community nutrition programs.

Unit I: Principles of Therapeutic Nutrition

Role of a Dietitian in Therapeutic nutrition; Therapeutic Modification of normal diets: Consistency, Temperature, Nutrient Composition. Modes of Feeding: Oral, Enteral Feeding and Parenteral Nutrition (PPN/TPN); Dietary management during Pre- and Post-operative Period; Dietary management during acute febrile conditions (Typhoid, Tuberculosis).

Unit II: Dietary Management of Chronic Metabolic Disorders

Overweight and Obesity: Etiology, Metabolic Alterations and Dietary Management. Diabetes Mellitus: Classification, Symptoms, Diagnostic criteria, Glycemic Index and Dietary Management. Cardiovascular Diseases: Atherosclerosis, Hypertension; Role of Sodium, Potassium and Fatty Acids in Dietary Management.

Unit III: Dietary Management of Gastrointestinal, Liver and Renal Disorders

Gastrointestinal Disorders: Etiology and Dietary Management of Diarrhea, Constipation, Peptic Ulcers and Celiac disease. Liver Diseases: Hepatitis, Cirrhosis and Hepatic Encephalopathy Symptoms and Dietary Management. Renal Disorders: Acute and Chronic Kidney disease; Management of Fluid and Electrolyte Balance.

Unit IV: Community Nutrition, Malnutrition and Nutritional Deficiencies

Malnutrition: Concept, Etiology, Prevalence and Socio-economic Consequences. Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM): Assessment and Management. Major Nutritional deficiencies: Protein-Energy Malnutrition (Kwashiorkor/Marasmus), Anemia, Vitamin A Deficiency and Iodine Deficiency Disorders (IDD).

Unit V: Nutrition Intervention Programs and Policies

National Nutrition Intervention Programs: Integrated Child Development Services (ICDS), POSHAN Abhiyaan and PM POSHAN (Mid-Day Meal). Public Distribution System (PDS), National Food Security Act (NFSA) and food fortification initiatives. Role of International agencies: WHO, UNICEF, FAO and CARE in Community Nutrition and Health.

PRACTICAL MJC50HSC 208(P)25

**Credit -1
Contacts Hours-30 Hrs**

1. Planning, Preparation and Presentation of Clear Liquid, Full Liquid and Soft Diets.
2. Designing Low-cost Nutrition Education Materials for Rural Communities: Posters, Flashcards.
3. Planning, Calculation and Preparation of a Therapeutic Day Menu for a patient with Type-2 Diabetic.
4. Planning, Calculation and Preparation of a Low-sodium, Low-cholesterol Diet for an Adult with Hypertension.
5. Field Visit to an ICDS Anganwadi Centre or PM POSHAN/ Mid-Day Meal Kitchen and Preparation of a Structural and Operational Report.

List of Essential Major Equipment

The major equipment includes digital kitchen scales, heavy-duty food scales, cooking ranges, microwave ovens, electric blenders, refrigerators, freezers, digital blood pressure monitors, anthropometric equipment, juicers, and strainers.

Major Laboratory Stores and consumables required

Standardized glassware and measuring containers, therapeutic cooking utensils, fine sieve sets, laminated educational models and field-visit equipment bags, educational materials, therapeutic diet ingredients, laboratory sanitation supplies and diet plan logs, diabetic exchange charts and nutritional workbooks.

References

1. Agarwal, A. Textbook of Human Nutrition. Academic reference; 2nd ed. listed in Indian nutrition curriculum sources.
2. Bamji, M. S., Krishnaswamy, K. & Brahman, G. N. V. Textbook of Human Nutrition. Oxford & IBH Publishing.
3. Chadha, R. & Mathur, P. Nutrition: A Life Cycle Approach. New Age International.
4. Gopalan, C., Rama Sastri, B. V. & Balasubramanian, S. C. Nutritive Value of Indian Foods. National Institute of Nutrition, ICMR.
5. Joshi, S. A. Nutrition and Dietetics. Tata McGraw-Hill / relevant Indian editions.
6. Longvah, T., Ananthan, R., Bhaskarachary, K. & Venkaiah, K. Indian Food Composition Tables. National Institute of Nutrition, Hyderabad.
7. Roday, S. Food Science and Nutrition. Oxford University Press.
8. Seth, V. & Singh, K. Diet Planning through the Life Cycle: Part 1 – Normal Nutrition: A Practical Manual. Elite Publishing House.
9. Srilakshmi, B. Dietetics. New Age International.
10. Srilakshmi, B. Nutrition Science. New Age International.
11. Swaminathan, M. Essentials of Food and Nutrition, Vol. I & II. Ganesh & Co.
12. Swaminathan, M. Handbook of Food and Nutrition. Bangalore Printing and Publishing Co.

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓			
CO2	✓	✓	✓		
CO3	✓	✓	✓		
CO4	✓	✓		✓	✓
CO5	✓	✓	✓	✓	✓

**MNC50HSC204(T)25: FAMILY RESOURCES, TEXTILE FINISHING & EXTENSION
EDUCATION**

Credit –(3)
Contact Hour – 45 Hrs.

<i>Nature of Course</i>	Minor – 4				
<i>Course Code</i>	MNC50HSC204 (T)25				
<i>Course Title</i>	Family Resources, Textile Finishing & Extension Education				
<i>Course Level</i>	Level-200				
<i>Credit Details</i>	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	4	3		1	4

Course Objective

The course is designed to provide an understanding of resource management, financial planning, textile finishing, dyeing and printing techniques, and extension programme planning. It equips students with practical skills for effective family resource utilization, textile enhancement, and community development activities.

Course Outcomes

After completing the course, students will be able to:

1. Explain the concepts and principles of time and energy management and apply techniques for efficient utilization of family resources.
2. Demonstrate financial planning skills through budgeting, savings, investments, digital transactions, and safe financial practices.
3. Describe various textile finishing processes and evaluate their effects on fabric appearance and performance.
4. Apply appropriate dyeing and printing techniques on different textile materials using suitable methods and materials.
5. Develop and prepare simple extension programme plans, objectives, budgets, and proposals for community development activities.

Unit I: Management of Time and Energy

Meaning and importance of time management; time plans, their characteristics and factors influencing time planning; control and evaluation of time plans; tools of time managements; Concept of human energy; energy cost of household activities; types of efforts; fatigue—types, causes, symptoms; work simplification—meaning, importance, techniques, and Mundel’s classes of change.

Unit II: Family Financial Planning and Financial Awareness

Budgeting—meaning, importance, types, steps, factors, and Engel’s laws of consumption; household account keeping—meaning, importance, and methods; savings—importance, types; investment—need, types, and principles; credit and loans—types, source; retirement and tax planning; digital

payment systems; debit, credit, and prepaid cards; cyber security and safe digital practices; financial frauds; fintech innovations and cashless economy.

Unit - III: Textile finishing process

Meaning, Need, importance of textile finishing. Classification of textile finishes-Temporary, Permanent, Durable and Semi-durable. Chemical and Mechanical Finishes-Chemical finishes-Mercerising, Crease resistance, Fireproof, Waterproof, Anti-microbial finish and Stiffening finish. Mechanical finishes: Calendaring, Beetling, Sanforising, Embossing, Glazing and Napping.

Unit - IV: Dyeing and Printing

Dyeing-meaning, classification and methods of dyeing. Preparation of textile materials for dyeing. Suitability of different dyes on different fabrics. – (cotton, silk and wool) Resist dyeing (Tie and dye, Batik) Printing-meaning, preparation of printing paste. Methods and equipment-Stencil, Screen, Block, Eco printing, Roller and Discharge Printing.

Unit-V: Extension Programme Planning

Programme planning: Meaning, concept, importance, principles, characteristics, and steps. Goals and objectives: Meaning, types, characteristics, and writing measurable objectives. Resources: Human, material, financial, and local resources. Budget Planning: preparation of a simple budget, Programme Proposal: Components of a simple extension programme proposal.

PRACTICAL MMN50HSC204(P)25

**Credit-(1)
Contact hours-30 Hrs**

1. Preparation and evaluation of daily and weekly time plans for a college student.
2. Preparation of family budgets for different income groups.
3. Finishing of cotton fabric using scouring, bleaching, and Mercerization.
4. Dyeing and printing of cotton fabric using different methods-plain dyeing, tie and dye, batik, block, screen, and stencil.
5. Developing a plan and conducting an extension programme in a selected village.

List of Essential Major Equipment

Laptop/desktop computer, calculator, multimedia projector, printer, digital camera/mobile camera, portable speaker, display board, filing cabinet/storage rack, drying rack, iron and ironing board, measuring equipment, thermometers, safety/fire-control equipment, buckets, tubs, and water containers.

Major Laboratory Stores and Consumables Required

Budget sheets, time-plan formats, record files, A4 paper, chart paper, pens, pencils, markers, folders, clipboards, stationery items, scissors, forceps, gloves, aprons, masks, brushes, fabrics, dyes, printing paste, tongs, questionnaires, attendance sheets, feedback forms, pamphlets, posters, adhesive tape, and report files.

References

1. Dorsey, J. M., & Nickell, P. (1983). *Management in Family Living*. Wiley Eastern Pvt. Ltd.
2. Mullick, P. (2000). *Home Management*. Kalyani Publishers.
3. Murali, S., & Subbakrishna, K. R. (2021). *Personal Financial Planning (Wealth Management)*. Himalaya Publishing House, Mumbai.
4. Paramasivan, C., & Subramanian, T. (2022). *Financial Management*. New Age International (P) Ltd., New Delhi. The Educational Planning Group. (1985). *Home Management*. Arya Publishing House.
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6. Choudhury, A. K. R. (2006) Textile Preparation and Dyeing. Oxford & IBH Publishing.
7. Corbman, B. P. (2020) Textiles: Fiber to Fabric. McGraw-Hill.
8. Parthiban, M. and Srikrishnan, M.R. (2020) Apparel Finishing and Clothing Care. Woodhead Publishing India
9. Seema, S. (2022) Textbook of Fabric Science: Fundamentals to Finishing PHI Learning Pvt Ltd
10. Vigo, T. L. (1997) Textile Processing and Properties: Preparation, Dyeing, Finishing and Performance. Elsevier.
11. Dahama, O.P. & Bhatnagar, O.P. (1985). *Education and Communication for Development*. 2nd ed., New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd.
12. Ray, G.L. (1991). *Extension Communication and Management*. Calcutta: Naya Prakash.

CO–PSO Mapping Matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓		✓	
CO2	✓	✓	✓		✓
CO3	✓	✓			
CO4	✓	✓	✓		
CO5	✓	✓	✓	✓	✓