

IFTM UNIVERSITY, MORADABAD
B.Sc. Home Science, Degree Programme
Effective from Session 2022-23

YEAR I, SEMESTER I

S.No.	Course code	Theory Course (Name Of The Paper)	Periods			EVALUATION SCHEME (Marks)				Course Total (Marks)	Credits
						Mid Semester Exam			End Semester Exam		
			L	T	P	MS 1+2	AS +AT	Total			
THEORY											
1.	BHSC-101T	Communication and Extension	3	1	0	10+10	5+5	30	70	100	4
2.	BHSC-102T	Resource Management	3	1	0	10+10	5+5	30	70	100	4
3.	BHSC-103T	Fashion Studies	3	1	0	10+10	5+5	30	70	100	4
4.	BHSC-104T	English language & Communication skills	3	1	0	10+10	5+5	30	70	100	4
PRACTICAL											
5.	BHSC-151P	Communication and Extension (Practical)	-	-	4			30	70	100	2
6.	BHSC-152P	Resource Management (Practical)	-	-	4			30	70	100	2
7.	BHSC-153P	Fashion Studies (Practical)	-	-	4			30	70	100	2
		TOTAL	12	4	12					700	22

YEAR I, SEMESTER II

S.No.	Course code	Theory Course (Name Of The Paper)	Periods			EVALUATION SCHEME (Marks)				Course Total (Marks)	Credits
						Mid Semester Exam			End Semester Exam		
			L	T	P	MS 1+2	AS +AT	Total			
THEORY											
1.	BHSC-201T	Fundamentals of Nutrition and Food Science	3	1	0	10+10	5+5	30	70	100	4
2.	BHSC-202T	Life Span Development I	3	1	0	10+10	5+5	30	70	100	4
3.	BHSC-203T	Fundamentals of Textiles	3	1	0	10+10	5+5	30	70	100	4
4.	BHSC-204T	Environmental Studies	3	1	0	10+10	5+5	30	70	100	4
PRACTICAL											
5.	BHSC-251P	Fundamentals of Nutrition and Food Science (Practical)	-	-	4			30	70	100	2
6.	BHSC-252P	Life Span Development I (Practical)	-	-	4			30	70	100	2
7.	BHSC-253P	Fundamentals of Textiles (Practical)	-	-	4			30	70	100	2
		TOTAL	12	4	12					700	22

YEAR II, SEMESTER III

S.No.	Course code	Theory Course (Name Of The Paper)	Periods			EVALUATION SCHEME (Marks)				Course Total (Marks)	Credits
						Mid Semester Exam			End Semester Exam		
			L	T	P	MS 1+2	AS +AT	Total			
THEORY											
1.	BHSC-301T	Physical Sciences	3	1	0	10+ 10	5+5	30	70	100	4
2.	BHSC-302T	Life Span Development - II	3	1	0	10+ 10	5+5	30	70	100	4
3.	BHSC-303T	Nutrition for the Family	3	1	0	10+ 10	5+5	30	70	100	4
PRACTICAL											
4.	SEC- 1	(List Attached)	-	-	8			30	70	100	4
5.	BHSC-351P	Physical Sciences (Practical)	-	-	4			30	70	100	2
6.	BHSC-352P	Life Span Development – II (Practical)	-	-	4			30	70	100	2
7.	BHSC-353P	Nutrition for the Family (Practical)	-	-	4			30	70	100	2
		TOTAL	9	3	20					700	22

YEAR II, SEMESTER IV

S.No.	Course code	Theory Course (Name Of The Paper)	Periods			EVALUATION SCHEME (Marks)				Course Total (Marks)	Credits
						Mid Semester Exam			End Semester Exam		
			L	T	P	MS 1+2	AS +AT	Total			
THEORY											
1.	BHSC-401T	Life Sciences	3	1	0	10+ 10	5+5	30	70	100	4
2.	BHSC-402T	Personal Finance and Consumer Studies	3	1	0	10+ 10	5+5	30	70	100	4
3.	BHSC-403T	Communication Systems and Social changes	3	1	0	10+ 10	5+5	30	70	100	4
PRACTICAL											
4.	SEC- 2	(List Attached)	-	-	8			30	70	100	4
5.	BHSC-451P	Life Sciences (Practical)	-	-	4			30	70	100	2
6.	BHSC-452P	Personal Finance and Consumer Studies (Practical)	-	-	4			30	70	100	2
7.	BHSC-453P	Communication Systems and Social changes (Practical)	-	-	4			30	70	100	2
		TOTAL	9	3	20					700	22

YEAR III, SEMESTER V

B. Sc. (Home Science) - III Year, Semester-V

S. No.	Course Code	Course Titles	EVALUATION SCHEME							Total	Credits
			Internal Exam					External Exam			
			L	T	P	CT	AS+AT		Total		
1.	BHSC-501	Nutrition Therapy	3	1	0	20	10	30	70	100	4
2.	BHSC-502	Community Development	3	1	0	20	10	30	70	100	4
3.	BHSC-503	Family Housing	3	1	0	20	10	30	70	100	4
4.	BHSC-504	Advanced Clothing Construction	3	1	0	20	10	30	70	100	4
5.	BHSC-505	Management of Meals	3	1	0	20	10	30	70	100	4
6.	BHSC-506/ BHSC-507B/ BHSC-508B	The Child With Special Need/ Research Methods in Human Development/ Techniques of Studying Human Development and Scientific Writing	3	1	0	20	10	30	70	100	4
7.	BHSC-551	Nutrition Therapy (Practical)	0	0	2	0	30	30	70	100	2
8.	BHSC-552	Management of Meals (Practical)	0	0	2	0	30	30	70	100	2
TOTAL			18	6	4	-	-	-	-	800	28

B. Sc. (Home Science) – III Year, Semester-VI

S. No.	Course Code	Course Titles	EVALUATION SCHEME							Total	Credits
			Internal Exam					External Exam			
			L	T	P	CT	AS+AT		Total		
1.	BHSC-601	Food Preservation & Protection	3	1	0	20	10	30	70	100	4
2.	BHSC-602	Art principles and Interior Decoration	3	1	0	20	10	30	70	100	4
3.	BHSC-603	Textile Design	3	1	0	20	10	30	70	100	4
4.	BHSC-604	Extension Training and Management	3	1	0	20	10	30	70	100	4
5.	BHSC-605	Furniture, Furnishing and Fittings	3	1	0	20	10	30	70	100	4
6.	BHSC-606/ BHSC-607B/ BHSC-608B	Entrepreneurship Management/ Child in the Family/ Adulthood and Ageing	3	1	0	20	10	30	70	100	4
7.	BHSC-651	Textile Design (Practical)	0	0	2	0	30	30	70	100	2
8.	BHSC-652	Entrepreneurship Management (Practical)	0	0	2	0	30	30	70	100	2
TOTAL			18	6	4	-	-	-	-	800	28

CORE COURSES
IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (I Semester)
BHSC-101T: Communication and Extension

COURSE OBJECTIVES

- To develop the understanding of scope and concepts of human communication for skill development.
- To gain insight the elements, models and process of communication for skill development.
- To appraise the process of effective communication for skill development.
- To learn the concept of extension, its philosophy, principles and scope for skill development.

UNIT I: Communication: (8 Sessions)

- Historical background, concept and nature
- Functions of Communication
- Types of Communication –Levels of communication transactions; Formal and informal communication; Verbal and Non-verbal Communication; Digital and non-digital Communication for skill development.
- Scope of Communication- Education, training and learning industry, Motivation and Management, Corporate Communication, Management of Organizations, Media Organizations, Advertising and Public relations
- Scope of Communication for Social Change

UNIT II: Understanding Human Communication (8 Sessions)

- Culture and communication- Signs, symbols and codes in communication for skill development
- Postulates/Principles of Communication
- Elements of Communication and their characteristics
- Models of Communication
- Barriers in Communication

UNIT III: Communicating Effectively (6 Sessions)

- Concept, nature and relevance for communication process for skill development
- Empathy
- Persuasion
- Perception
- Listening

UNIT IV: Communication for Extension (8 Sessions)

- Concept, nature and philosophy of Extension
- Principles of Extension
- Extension worker: Role, responsibilities and qualities for skill development and employability
- Methods and Media of community outreach; Audio-Visual aids- concept, classification, characteristics and scope, Edgar Dale's Cone of Experience
- Relationship between, Communication, Extension and Development
- Scope of C4D

Course Outcomes: Students completing this course will be able to:

- CO 1. Develop understanding of scope and concepts of human communication for global skill development.
- CO 2. Comprehend the elements and process of effective communication for global skill development. CO 3. Grasp understanding about various communication methods and materials for skill development
- CO 4. Learn the concept of extension, its philosophy, principles and scope for skill development and employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	3	3	1	2	1	2	3	1	1	1
CO2	3	3	3	3	1	3	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	2	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	2	1

SUGGESTED READINGS:

- Anand, S. & Kumar, A. (2016). Dynamics of Human Communication. New Delhi: Orient Black Swan. ISBN: 9788125063254.
- Devito, J. (1998). Human Communication. New York: Harper & Row.
- Bhatnagar. O.P & Dhama, O.P. (2009). Education And Communication For Development 2ed. New Delhi: Oxford & IBH Publishing Co. Pvt Ltd. ISBN-13: 978-8120400306.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (I Semester)
BHSC-151P: Communication and Extension (Practical)

COURSE OBJECTIVES

- To develop the understanding of scope and concepts of human communication for skill development.
- To gain insight the elements, models and process of communication for skill development.
- To appraise the process of effective communication for skill development.
- To learn the concept of extension, its philosophy, principles and scope for skill development.

PRACTICAL:

- Developing skills in planning and conducting small group communication for skill development
- Review of media on selected issues for skill development.
- Design and use of graphic media for skill development and employability

Course Outcomes: Students completing this course will be able to:

CO 1. Develop skills in planning and conducting group communication for global skill development.

CO 2. Grasp understanding about various media for skill development and employability

CO 3. Learn the design and use of graphic media for skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	3	1	2	3	1	2	1
CO2	3	2	2	3	1	3	1	1	1	3	3	3
CO3	1	1	3	1	1	3	1	1	1	3	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	3	2
CO3	3	3	2

SUGGESTED READINGS:

- Anand, S. & Kumar, A. (2016). Dynamics of Human Communication. New Delhi: Orient Black Swan. ISBN: 9788125063254
- Bhatnagar. O.P & Dhama, O.P. (2009). Education And Communication For Development 2ed. New Delhi: Oxford & IBH Publishing Co. Pvt Ltd. ISBN-13: 978-8120400306
- Devito, J. (1998). Human Communication. New York: Harper & Row.
- Barker, L. (1990). "Communication". New Jersey: Prentice Hall, Inc; 171.
- Patri, V. R. and Patri, N. (2002); Essentials of Communication. Greenspan Publications.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (I Semester)
BHSC-102T: Resource management

COURSE OBJECTIVES

- To enable students understand the fundamentals of resource management in changing scenario and available resources, their uses and conservation for skill development and employability
- To understand the processes of management in a scientific manner in the judicious use of resources for better skilling of entrepreneurship

UNIT I: Introduction to Resource Management

(8 Sessions)

- Concept, universality and scope of management for skill development
- Theories in Management
- Approaches in management
- Ethical: Ethical guides for managers/ Social responsibility and ethics with reference to organizational management for skill development
- Role of motivation in management: Values, Goals and Standards; Theories of motivation- Maslow's hierarchy of needs & Herzberg's theory for skill development

UNIT II: Resources

(8 Sessions)

- Understanding resources for skill development and employability
- Meaning, classification and characteristics of resources
Factors affecting utilization of resources
Maximizing use of resources
Resource conservation
Family life cycle in context to the use of resources: Time, energy and money
- Management of Time, Energy and Cognitive resources
- Time Management: Concept, tools and steps
Energy Management: Concept, body mechanics, fatigue, work simplification
Cognitive Resource Management: knowledge, memory, problem solving, judgment & skill

UNIT III: Functions of Management: An Overview

(6 Sessions)

- Decision Making: Concept, types of decision & steps involved in decision making for better skilling of entrepreneurship
- Planning: Nature and characteristics, classification of plans & steps in planning for better skilling of entrepreneurship
- Organizing: Importance & process of organization for better skilling of entrepreneurship
- Supervision: Types of supervision (Directing & guiding), factors of supervision for better skilling of entrepreneurship
- Controlling: Types of control, steps in controlling, requirements of effective control for better skilling of entrepreneurship
- Evaluation: Types of evaluation, importance of concurrent evaluation for better skilling of entrepreneurship

UNIT IV: Application of Management

(4 Sessions)

Application of management process in event planning and execution: concept of event management, classification of events, 5 C' of events, stages in event management for skill development and employability

Course Outcomes: Students completing this course will be able to:

CO 1. Understand basic concept, universality and scope of resource management for global skill development.

CO 2. Familiarize the students with the available resources, their uses and conservation for skill development and employability

CO 3. Understand the processes of management in a scientific manner in the use of resources for better skilling of local entrepreneurship.

CO 4. Enriched knowledge on Application of management for skill development and employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	3	2	3		2	3		3	
CO2	2	2	3	2		3				2	2	
CO3			2		3	3				3	3	
CO4	3		3					2	3		2	

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	3	1
CO3	3	2	3
CO4	3	3	1

SUGGESTED READINGS:

- Goel, S. (2016). Management of resources for sustainable development. New Delhi: Orient Black swan Pvt. Ltd
- Koontz, H., & O'Donnel, C.(2005).Management : A systems and contingency analysis of managerial functions. New York: McGraw-Hill Book Company.
- Steidl, R. & Bratton, E. (1968). Work in the Home. USA: John Wiley & Sons, Inc.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (I Semester)
BHSC-152P: Resource management (Practical)

COURSE OBJECTIVES

- To enable student understand the fundamentals of resource management in changing scenario and available resources, their uses and conservation for skill development and employability
- To understand the processes of management in a scientific manner in the judicious use of resources for better skilling of entrepreneurship

PRACTICAL:

- Resource conservation and optimization through reuse and recycle/green technologies (natural resources):
Portfolio
- Identification and development of self as a resource for skill development and employability
 - Micro Lab and Who am I
 - SWOT analysis
 - Building decision making abilities through management games
- Preparation of time plans for self and family
- Work improvement using time and motion study for skill development and employability
- Event planning, management and evaluation with reference to
 - Managerial process
 - Resource optimization - time, money, products, space, human capital for skill development and employability

Course Outcomes: Students completing this course will be able to:

CO 1. Understand basic concept, universality and scope of resource management for global skill development.

CO 2. Familiarize the students with the available resources, their uses and conservation for skill development and employability

CO 3. Understand the processes of management in a scientific manner in the use of resources for better skilling of entrepreneurship.

CO 4. Enriched knowledge on Application of management for skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	3	2	3	1	2	3	1	3	1
CO2	2	2	3	2	1	3	1	1	1	2	2	1
CO3	1	1	2	1	3	3	1	1	1	3	3	1
CO4	3	1	3	1	1	1	1	2	3	1	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	3	1
CO3	3	2	3
CO4	3	3	1

SUGGESTED READINGS:

- Goel, S. (2016). Management of resources for sustainable development. New Delhi: Orient Blackswan Pvt. Ltd.
- Koontz, H., & O'Donnel, C.(2005).Management : A systems and contingency analysis of managerial functions. New York: McGraw-Hill Book Company.
- Steidl, R. & Bratton, E. (1968). Work in the Home. USA: John Wiley & Sons, Inc.
- Kreitner, R. (2009). Management.Canada: Houghton Mifflin Harcourt Publishing Company.
- Rao, V.S. &Narayana, P.S. (2007).Principles and practices of management.New Delhi: Konark Publishers Pvt. Ltd.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (I Semester)
BHSC-103T: Fashion Studies

COURSE OBJECTIVES

- To impart knowledge about functions and theories of clothing for skill development and employability
- To understand the basics of fashion and fashion industry for better skilling of entrepreneurship.
- To develop sensitivity towards selection of garments and garment design for skill development and employability

UNIT I: Importance of clothing

(6 Sessions)

- Clothing functions and theories of origin
- Clothing terminology
- Individuality and conformity, conspicuous consumption and emulation
- Selection of clothes for different age groups and special needs for skill development
- Selection and Evaluation of ready-made garments for skill development

UNIT II: Fundamentals of Fashion

(8 Sessions)

- Terminology for skill development
- Fashion cycle
- Sources of fashion for skill development
- Factors favouring and retarding fashion
- Fashion Adoption Process- Trickle-down theory, bottom up theory & trickle across theory

UNIT III: Fashion industry

(4 Sessions)

- Structure and functioning of fashion industry for skill development and employability
- Fashion centres and leading designers for skill development and employability

UNIT IV: Study of garment components:

(4 Sessions)

- Classification and application of sleeves, cuffs, collars, necklines, plackets, pockets, yokes, trims and accessories for better skilling of entrepreneurship.

UNIT V: Design

(5 Sessions)

- Elements and principles of design for skill development and employability
- Structural and applied design for skill development and employability

Course Outcomes: Students completing this course will be able to:

CO 1. Identify the role and functions of clothing and recognize the factors affecting selection and evaluation of clothing for global skill development

CO 2. Explain the concept of fashion, its terminology, sources and factors affecting it for skill development

CO 3. Describe the global fashion industry and its leading designers for skill development and employability

CO 4. Classify and illustrate various components of garment for better skilling of entrepreneurship.

CO 5. Apply the knowledge of elements and principles in design interpretation for skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	2	3	1	3	2	1	2	3
CO2	3	3	2	3	1	3	1	1	1	2	2	3
CO3	1	1	3	1	3	3	1	1	1	3	3	1
CO4	3	1	2	1	1	3	1	2	3	1	3	3
CO5	3	1	3	3	2	1	1	2	3	2	1	3

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	2	3	1
CO4	2	3	3
CO5	2	3	1

SUGGESTED READINGS:

- Frings G.S., 1999, Fashion from Concept to Consumer, 6th edition, Printice Hall, New Jersey. Chapter 8 pg. 153-173
- Liechty, E.G., Potterberg, D.N., Rasband, J.A., 2010, Fitting and Pattern Alteration: A Multimethod Approach, Fairchild Publications, New York.
- Brown, Patty, Rice Janett., 1998, Ready to Wear Apparel Analysis. Prentice Hall, New Jersey.
- Marshall S G, Jackson H O, Stanley MS, Kefgen M & Specht T, 2004, Individuality in Clothing & Personal Appearance, 6th Edition, Pearson Education, USA.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (I Semester)
BHSC-153P: Fashion Studies (Practical)

COURSE OBJECTIVES

- To impart knowledge about functions and theories of clothing for skill development and employability
- To understand the basics of fashion and fashion industry for better skilling of entrepreneurship.
- To develop sensitivity towards selection of garments and garment design for skill development and employability

PRACTICAL:

- Flat sketching and identification of garments components
- Identification of structural and applied design component in garments
- Interpretation of elements and principles of design concepts from print and visual mediums
- Market survey on different clothing brands to study the available styles, colours, materials and labels.
- Market survey on various trims and garment accessories

Course Outcomes: Students completing this course will be able to:

CO 1. Identify the role and functions of clothing and recognize the factors affecting selection and evaluation of clothing for global skill development

CO 2. Explain the concept of fashion, its terminology, sources and factors affecting it for skill development

CO 3. Describe the global fashion industry and its leading designers for skill development and employability

CO 4. Classify and illustrate various components of garment for better skilling of local entrepreneurship.

CO 5. Apply the knowledge of elements and principles in design interpretation for skill development and nationally employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	2	3	1	3	2	1	2	3
CO2	3	3	2	3	1	3	1	1	1	2	2	3
CO3	1	1	3	1	3	3	1	1	1	3	3	1
CO4	3	1	2	1	1	3	1	2	3	1	3	3
CO5	3	1	3	3	2	1	1	2	3	2	1	3

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	2	3	1
CO4	2	3	3
CO5	2	3	1

SUGGESTED READINGS:

- Brown, Patty, Rice J., 1998, Ready to Wear Apparel Analysis. Prentice Hall.
- Marshall S G, Jackson H O, Stanley MS, Kefgen M & Specht T, 2009, Individuality in Clothing & Personal Appearance, 6th Edition, Pearson Education, USA.
- Tate S.L., Edwards M.S., 1982, The Complete Book of Fashion Design, Harper and Row Publications, New York.
- Fringes G.S., 1994, Fashion from Concept to Consumer, 6th edition, Prentice Hall, New Jersey.
- Ireland, P.J. 2003, Introduction to Fashion Design, B.T. Batsford, London.
- R. Andrew, 2018, Key Concepts for Fashion Industry, Bloomsbury Publishing, India.

ABILITY ENHANCEMENT ELECTIVE COURSE

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (I Semester)
BHSC-104T: English language & Communication

COURSE OBJECTIVES

To enhance the learner's communication skills by giving adequate exposure in LSRW- listening, speaking, reading and writing skills and the related sub-skills for skill development and employability

UNIT I

(10 Sessions)

Introduction to Communication - Communication, Importance of effective communication, Principles of communication (clarity, completeness, conciseness, consideration, courtesy), correctness for skill development

UNIT II

(7 Sessions)

Aids to correct writing - Nouns, Pronouns, Adjectives, Articles, Verbs, Adverbs, Prepositions, Conjunctions, Punctuation

Vocabulary – Synonyms, Antonyms, one word substitution, Idioms & Phrases for skill development
Sentences - (Present, Past and Future).

UNIT III

(6 Sessions)

Paragraph Writing - writing a few lines (10-15) on any given topic or writing a Paragraph completing a given set sentences for skill development

UNIT IV

(10 Sessions)

Letter Writing- Job application letter with bio-data / resume, Joining Letter, Business letter, Enquiry Letter Complain Letter, Adjustment Letter, Letter to the Editor of a newspaper for skill development and employability

UNIT V

(5 Sessions)

Report writing - Importance, types of reports, parts of reports, preparing the report, Essay writing, Precise writing for skill development and employability

Course Outcomes:

CO 1. Learners of our course can easily acquire wide knowledge and allow them to be effective in their interpretations for global skill development

CO 2. Skills of LSRW in English make the students to enrich themselves in all aspects and make them to explore and demonstrate an ability to cope up the life with stylistic clarity for skill development

CO 3. To main outcome of studying English will widely help to express and improve the ability to read works of literary, rhetorical and cultural criticism for global skill development

CO 4. It further makes them to develop and acquire great opportunities that is needed in their future career makes oneself to get good job and soon for skill development and national employability

CO 5. It helps the reader to be fluent in English and makes them to be bold enough wherever they go as they are good in English for skill development and employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	3	1	2	3	1	3	1
CO2	2	3	2	3	1	3	1	1	1	3	2	1
CO3	1	1	3	1	2	3	1	1	1	3	2	1
CO4	3	1	2	1	1	3	1	2	3	1	3	1
CO5	3	1	2	3	2	1	1	2	2	3	1	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	3	1
CO5	3	3	1

SUGGESTED READINGS:

- English Grammar, Composition and usage by J. E. Nesfield adapted by N. K. Aggrawal and F.T. Wood.
- English Idioms by Jennifer Seidi and W. McMordie
- Creative English for Communication by N. Krishnaswamy and T. Sriraman
- High School English Grammar and Composition Book (Regular Edition) by **Wren & Martin and revised by D V Prasada Rao N and N D V Prasada Rao**
- Essential English Grammar by **Raymond Murphy**
- Intermediate English Grammar by **Raymond Murphy**
- Penguin Guide to Punctuation by **R L Trask**
- The Penguin Writer’s Manual by **Martin Manser and Stephen Curtis**

Website Sources:

- <https://www.molloy.edu/Documents/English/GrammarNotes.pdf>
- <http://www.espressoenglish.net/wp-content/uploads/2012/07/Free-Grammar-Ebook-Level-2.pdf>
- <https://www.slideshare.net/kssalcedo/basics-of-english-grammar>
- <https://www.slideshare.net/cjsmann/englishgrammar-70540449>
- <https://www.slideshare.net/txgrunt/basic-english-grammar-34219611>

CORE COURSES
IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (II Semester)
BHSC-201T: Fundamentals of Nutrition and Food Science

COURSE OBJECTIVES

- To understand the relationship between food, nutrition and health for skill development
- To understand the functions of food, basic concepts of food groups and balanced diet for skill development
- To describe the functions of various nutrients and their sources & gaining knowledge about clinical manifestations of excess/ deficiency of nutrients for skill development
- To learn about various methods of cooking and to understand the selection, nutritional contribution of and effect of cooking on different food groups for skill development
- To describe ways of reducing nutrient losses during cooking and methods of enhancement of nutritional quality of foods for skill development
- To be able to prepare dishes using principles of food science for skill development and employability

UNIT I: Basic concepts in food and nutrition

(8 Sessions)

- Basic terms used in study of food and nutrition for skill development
- Understanding relationship between food, nutrition and health
- Functions of food-Physiological, psychological and social for skill development

UNIT II: Nutrients

(8 Sessions)

- Functions, dietary sources and clinical manifestations of deficiency/ excess of the following nutrients:
Carbohydrates, lipids and proteins for skill development
Fat soluble vitamins-A, D, E and K
Water soluble vitamins – thiamin, riboflavin, niacin, pyridoxine, folate, vitamin B12 and vitamin C
Minerals – calcium, iron and iodine for skill development

UNIT III: Food Groups

(8 Sessions)

- Selection, nutritional contribution and changes during cooking of the following food groups for skill development:
 - Cereals
 - Pulses
 - Fruits and vegetables
 - Milk & milk products
 - Eggs
 - Meat, poultry and fish
 - Fats and Oils

UNIT IV: Methods of Cooking and Preventing Nutrient Losses

(6 Sessions)

- Dry, moist, frying and microwave cooking for skill development and employability
- Advantages, disadvantages and the effect of various methods of cooking on nutrients for skill development and employability
- Minimising nutrient losses

Course Outcomes: Students completing this course will be able to:

CO1: Comprehend relationship between food, nutrition and health for global skill development.

CO2: Understand functions of various nutrients and their sources & gaining knowledge about clinical manifestations of excess / deficiency of nutrients for skill development.

CO3: Understand the selection, nutritional contribution and changes during cooking of the commonly consumed foods for global skill development

CO4: Understand the concept of nutrient losses during pre-preparation and preparation of food for skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	3	3	2	3	1	2	1
CO2	3	3	2	3	1	3	2	2	1	3	3	1
CO3	3	1	2	1	2	3	3	1	1	3	2	1
CO4	3	1	2	1	1	3	3	2	3	1	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	3	1
CO4	3	3	2

SUGGESTED READINGS:

Rekhi T and Yadav H (2014). Fundamentals of Food and Nutrition. Elite Publishing House Pvt Ltd., Delhi

Srilakshmi B (2014). Food Science, 6th Edition. New Age International Ltd., Delhi

Chadha R and Mathur P (eds)(2015). Nutrition: A Lifecycle Approach. Orient Blackswan, Hyderabad

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (II Semester)
BHSC-251P: Fundamentals of Nutrition and Food Science (Practical)

COURSE OBJECTIVES

- To understand the relationship between food, nutrition and health for skill development
- To understand the functions of food, basic concepts of food groups and balanced diet for skill development
- To describe the functions of various nutrients and their sources & gaining knowledge about clinical manifestations of excess/ deficiency of nutrients for skill development
- To be able to prepare dishes using principles of food science for skill development and employability

PRACTICAL:

- Weights and measures; preparing market order and table settings for skill development and employability
- Food preparation, understanding the principles involved, nutritional quality and portion size for skill development and employability
- Beverages: Hot tea/coffee, Milk shake/ lassi, fruit based beverages. · Cereals: Boiled rice, pulao, chapatti, parantha, puri, pastas for better skilling of entrepreneurship.
- Pulses: Whole, dehusked.
- Vegetables: curries, dry preparations.
- Milk and milk products: Kheer, custard.
- Meat, Fish and poultry preparations.
- Egg preparations: Boiled, poached, fried, scrambled, omelettes, egg pudding.
- Soups: Broth, plain and cream soups.
- Baked products: Biscuits/cookies, cream cakes, sponge cake preparations, tarts and pies. Snacks: Pakoras, cutlets, samosas, upma, poha, sandwiches for better skilling of entrepreneurship.
- Salads: Salads and salad dressings.

Course Outcomes: Students completing this course will be able to:

- CO 1. Gain knowledge about weight and measures for global skill development and national employability
- CO 2. Understand the basic preparation and principles for food planning for skill development and national employability
- CO 3. Understand the selection, nutritional contribution, recipes and changes during cooking of the commonly consumed foods for better skilling of local entrepreneurship.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	2	3	2	3	3	2	2	1	3	1
CO2	3	3	2	3	1	3	3	2	1	3	2	1
CO3	2	1	2	1	3	3	3	1	1	3	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	2
CO2	3	3	2
CO3	3	2	3

SUGGESTED READINGS:

- Chadha R and Mathur P (eds)(2015). Nutrition: A Lifecycle Approach. Orient Blackswan, Hyderabad.
- Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). The Art and Science of Cooking: A Practical Manual, Revised Edition. Elite Publishing House Pvt Ltd.
- Raina U, Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S (2010). Basic Food Preparation: A Complete Manual, Fourth Edition. Orient Black Swan Ltd.
- Rekhi T and Yadav H (2014). Fundamentals of Food and Nutrition. Elite Publishing House Pvt Ltd., Delhi.
- Srilakshmi B (2014). Food Science, 6th Edition. New Age International Ltd., Delhi.
- Bamji MS, Krishnaswamy K, Brahmam GNV (2016). Textbook of Human Nutrition, 4th edition. Oxford and IBH Publishing Co. Pvt. Ltd.
- Byrd-Bredbenner C, Moe G, Beshgetoor D, Berning J. Wardlaw's Perspectives in Nutrition, McGraw- Hill International Edition, 9th edition, 2013.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (II Semester)
BHSC-202T: Life Span Development I

COURSE OBJECTIVES

- To develop an understanding about the discipline of Lifespan Development for skill development
- To acquire a detailed understanding of developmental milestones and domains from conception to middle childhood for skill development
- To gain insight on context specific cultural practices of development in children and explore the role of family and community in the life of children for skill development

UNIT I: Understanding Human Development (9 Sessions)

- Definitions, scope and multidisciplinary nature of Human Development for skill development
- Contexts, stages and domains of development
- Principles of Growth and Development: Norms and Milestones for skill development
- Conception, pregnancy and birth
- Influences on pregnancy

UNIT II: Early Childhood Years (8 Sessions)

- Capacities of neonate for skill development
- Development in Infancy and Preschool for skill development
- Physical-motor development
- Cognitive and language development
- Socio-emotional development; Family, Preschool and Play for skill development

UNIT III: Middle Childhood Years (8 Sessions)

- Physical-motor development for skill development
- Cognitive and language development
- Socio-emotional development; School, Peers and Media for skill development
- Moral development

Course Outcomes: Students completing this course will be able to:

CO 1. Develop an understanding about the nature of development, Lifespan Development and influence of pregnancy for global skill development

CO 2. Acquire a detailed understanding of developmental milestones and domains from conception to early childhood for skill development

CO 3. Acquire a detailed understanding of developmental milestones and domains from conception to middle childhood for skill development

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	2	3	3	2	3	1	3	1
CO2	3	2	3	3	1	3	3	2	1	2	3	1
CO3	3	1	2	1	2	3	2	1	1	3	3	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1

SUGGESTED READINGS:

- Berk, L. E. (2007). Development through the lifespan. Delhi: Pearson Education. McGraw- Hill.
- Papalia, D.E. and Martorell, G.(2015). Experience Human Development, McGraw-Hill Education.
- Rice. F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice Hall.
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata
- Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi:Orient Black Swan.
- Journal of Developmental Psychology
- Rutter, M. and Rutter,M. (1992). Developing Minds. Challenge and continuity across the lifespan. London: Penguin

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (II Semester)
BHSC-252P: Life Span Development I (Practical)

COURSE OBJECTIVES

To develop an understanding about the discipline of Lifespan Development for skill development

- To acquire a detailed understanding of developmental milestones and domains from conception to middle childhood for skill development
- To gain insight on context specific cultural practices of development in children and explore the role of family and community in the life of children for skill development

PRACTICAL:

- Methods of child study and their use for skill development:

- Interview

- Observations

- Checklist

- Plan and develop activities to facilitate development in different domains for skill development
- Use of secondary sources to understand the depiction of children for skill development
- Psychometric tests for children- Developmental Assessment Scale for Indian Infants (DASII), Wechsler Preschool and Primary Scales of Intelligence (WPPSI), Children Apperception Test (CAT) for skill development

Course Outcomes: Students completing this course will be able to:

CO 1. Develop an understanding about the discipline of Lifespan Development for global skill development.

CO 2. Acquire a detailed understanding of developmental milestones and domains from conception to middle childhood for global skill development.

CO 3. Understand salient features of child development by using primary and secondary methods of data collection for skill development.

CO 4. Gain insight about the depiction of children through the use of secondary sources for global skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	2	2	3	1	2	2	1	2	1
CO2	3	2	3	2	1	3	1	3	1	3	2	1
CO3	3	1	2	1	3	3	1	1	1	3	3	1
CO4	3	1	2	1	1	3	1	2	2	1	3	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1

SUGGESTED READINGS:

- Singh, A. (Ed.) 2015. Foundations of Human Development. New Delhi: Tata McGraw- Hill.
- Bee. H. (1995). The Developing Child. Harper Collins.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (II Semester)
BHSC-203T: Fundamentals of Textiles

COURSE OBJECTIVES

- To impart the knowledge of textiles fibres and yarns in terms of their production, properties and application for better skilling of entrepreneurship.
- To equip the students with an in-depth information regarding the various fabric construction for skill development and employability
- To provide comprehensive knowledge about the concepts of dyeing, printing and finishing of textiles for better skilling of entrepreneurship.

UNIT I: Textile fibres and their properties

(8 Sessions)

- Molecular structure of fibres
- Primary and secondary properties of textile fibres with reference to their effect on fibre characteristics
- Classification of fibres
- Origin, production and properties of various fibres: Natural-cotton, linen, wool, silk. Man-made rayon, polyester, polyamide (nylon 6, 6) acrylics, elastomeric fibres for better skilling of entrepreneurship.

UNIT II: Yarns

(8 Sessions)

- Basic principle of yarn making: Mechanical spinning (cotton system, wool system, worsted system), Chemical spinning (wet, dry and melt) for skill development and employability
- Types of yarns: Staple, Filament, Simple, complex
- Properties of yarns: Yarn numbering systems and twist for skill development and employability
- Textured yarns: Classification, manufacture and properties
- Blends: Types of blends and purpose of bending

UNIT III: Fabric construction

(8 Sessions)

- Weaving: Parts and functions of the loom
- Weaves: Classification, construction, characteristics and usage for skill development and employability
- Knitting: Classification, construction, characteristics and usage for skill development and employability
- Non woven and felts-construction, properties and usage

UNIT IV: Dyeing, Printing and Finishing

(8 Sessions)

- Basics of dyeing for better skilling of entrepreneurship.
- Printing methods and style for better skilling of entrepreneurship.
- Finishes

Course Outcomes: Students completing this course will be able to:

- CO 1. Describe textile fibres in terms of their production and properties for better skilling of local entrepreneurship.
- CO 2. Understand various production techniques and properties of yarns for skill development and national employability
- CO 3. Develop understanding about fabrics, production techniques, properties and uses for skill development and national employability
- CO 4. Understand the basic dyeing, printing and finishing techniques for better skilling of local entrepreneurship.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	3	3	3	3	1	2	3	1	2	3
CO2	2	3	3	3	1	3	1	2	1	3	2	2
CO3	2	1	2	1	3	3	1	1	1	3	2	3
CO4	2	2	2	3	1	3	1	2	3	1	2	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	3
CO2	3	3	2
CO3	3	3	2
CO4	3	3	3

SUGGESTED READINGS:

- Rastogi, D. and Chopra, S. (Ed) (2017) Textile science, India: Orient Black Swan Publishing Limited.
- Joseph, M.L., (1988) Essentials of Textiles (6th Edition), Holt, Rinehart and Winston Inc., Florida.
- Corbman, P.B., (1985) Textiles- Fiber to Fabric (6th Edition), Gregg Division/McGrawHill Book Co., US.
- Sekhri S., (2013) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi.
- Tortora, G. Phyllis, Understanding Textiles, McMillan Co. USA.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (II Semester)
BHSC-253P: Fundamentals of Textiles (Practical)

COURSE OBJECTIVES

- To impart the knowledge of textiles fibres and yarns in terms of their production, properties and application for better skilling of entrepreneurship.
- To equip the students with an in-depth information regarding the various fabric construction for skill development and employability
- To provide comprehensive knowledge about the concepts of dyeing, printing and finishing of textiles for better skilling of entrepreneurship.

PRACTICAL:

- Fibre Identification tests –Visual, burning, microscopic and chemical for skill development and employability
- Yarn Identification – Single, ply, cord, textured, elastic, monofilament, multifilament and spun yarn
- Thread count and balance for skill development and employability
- Dimensional stability
- Weaves- Identification and their design interpretation on graph for better skilling of entrepreneurship
- Fabric Weight
- Fabric analysis of light, medium & heavy weight fabrics (five each) Fibre type
 - Yarn type
 - Weave
 - GSM
 - End use
 - Trade name
- Tie and Dye: Different methods for better skilling of entrepreneurship.

Course Outcomes: Students completing this course will be able to:

- CO 1. Describe textile fibres in terms of their production and properties for better skilling of entrepreneurship.
- CO 2. Understand various production techniques and properties of yarns for skill development and employability
- CO 3. Develop understanding about fabrics, production techniques, properties and uses for skill development and national employability
- CO 4. Understand the basic dyeing, printing and finishing techniques for better skilling of local entrepreneurship.

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	3	3	3	3	1	2	3	1	2	3
CO2	2	3	3	3	1	3	1	2	1	3	2	2
CO3	2	1	2	1	3	3	1	1	1	3	2	3
CO4	2	2	2	3	1	3	1	2	3	1	2	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	3
CO2	3	3	2
CO3	3	3	2
CO4	3	3	3

SUGGESTED READINGS:

- Chanchal, Arora, C., Chopra, S. and Rastogi, D., Textile science: a practical manual, Elite Publishing House Pvt Ltd.
- Joseph, M.L., (1988) Essentials of Textiles (6th Edition), Holt, Rinehart and Winston Inc., Florida.
- Rastogi, D. and Chopra, S. (Ed) (2017) Textile science, India: Orient Black Swan Publishing Limited.
- Sekhri S., (2013) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi
- Corbman, P.B., (1985) Textiles- Fiber to Fabric (6th Edition), Gregg Division/McGrawHill Book Co., US.
- Tortora, G. Phyllis, Understanding Textiles, McMillan Co. USA

ABILITY ENHANCEMENT ELECTIVE COURSE

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science I Year (II Semester)
BHSC-204T: Environmental Studies

COURSE OBJECTIVES

- Creating the awareness about environmental problems among people for skill development.
- Imparting basic knowledge about the environment and its allied problems for skill development.
- Developing an attitude of concern for the environment for skill development.
- Motivating public to participate in environment protection and environment improvement for skill development.
- Acquiring skills to help the concerned individuals in identifying and solving environmental problems for skill development.
- Striving to attain harmony with Nature for skill development.

UNIT I

(5 Sessions)

Nature, Definition, Scope and Importance of Environmental Studies for skill development.

UNIT II

(12 Sessions)

Natural Resources: Renewable and non-renewable resources, Natural resources and associated problems. Forest resources: Use and over-exploitation, Deforestation, Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems. Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources for skill development.

UNIT III

(8 Sessions)

World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, Energy resources: Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. Land resources for skill development: Land as a resource, land degradation, man induced landslides, soil erosion and desertification, Role of an individual in conservation of natural resources & equitable use of resources for sustainable lifestyles for skill development.

UNIT IV

(8 Sessions)

Ecosystems: Concept of an Ecosystem, Structure and Function of an Ecosystem, Energy flow in the ecosystem. Hot-spots of Bio-diversity, Threats to Bio-diversity: Habitat Loss, poaching of wildlife, man wildlife conflicts. Conservation of Bio-diversity: In-situ and Ex-situ conservation of biodiversity. Environmental Pollution for skill development

Definition, Cause, effects and control measures of: a. Air pollution b. Water pollution c. Soil pollution d. Marine pollution e. Noise pollution f. Thermal pollution g. Nuclear hazards, Solid Waste Management: Causes, effects and control measures of urban and industrial wastes & Role of an individual in prevention of pollution.

UNIT 5

(8 Sessions)

Social Issues and the Environment: From Unsustainable to Sustainable development, urban problems related to energy, Water conservation, rain water harvesting, watershed management for skill development, Resettlement and rehabilitation of people; its problems and concerns. Environmental Ethics : Issues and possible solutions, Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, Environment Protection Act: Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act, Wildlife Protection Act & Forest Conservation Act, Issues involved in enforcement of environmental legislation for skill development.

Field Work

Visit to a local polluted site-Urban/Rural/Industrial/Agricultural, Study of common plants, insects, birds, Study of simple ecosystems-pond, river, hill slopes, etc.

Course Outcomes: Students completing this course will be able to:

CO 1. Critically examine all sides of environmental issues and apply understanding from disciplines such as history, economics, psychology, law, literature, politics, sociology, philosophy, and religion to create informed opinions about how to interact with the environment on both a personal and a social level **for global skill development.**

CO 2. Understand about the renewable and non-renewable resources for skill development.

CO 3. Understand about the factors affect the energy and land resources for skill development.

CO 4. Gain knowledge about the eco system, biodiversity and causes and effect of environmental pollution for skill development.

CO 5. Gain knowledge about the environmental issues and environmental protection act for global skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	3	2	3	2	1	3	3	1	2	1
CO2	3	3	3	2	1	3	1	2	1	3	3	1
CO3	3	1	2	1	3	2	1	1	1	3	2	1
CO4	2	2	2	2	1	2	1	2	2	1	3	1
CO5	2	2	2	3	1	3	1	2	1	3	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	2
CO3	3	2	2
CO4	3	2	2
CO5	3	2	2

SUGGESTED READINGS:

1. Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
2. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad – 380 013, India,
3. Email:mapin@icenet.net (R)
4. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
5. Clark R.S., Marine Pollution, Clarendon Press Oxford (TB) e) Cunningham, W.P. Cooper, T.H.
6. Jaico Publ. House, Mumabai, 1196p
7. De A.K., Environmental Chemistry, Wiley Eastern Ltd.
8. Down to Earth, Centre for Science and Environment (R)
9. Gleick, H.P. 1993. Water in crisis, Pacific Institute for Studies in Dev., Environment & Security.
10. Stockholm Env. Institute Oxford Univ. Press. 473p
11. Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)
12. Heywood, V.H & Waston, R.T. 1995. Global Biodiversity Assessment. Cambridge Univ. Press 1140p.
13. Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284 p.
14. Mckinney, M.L. & School, R.M. 1996. Environmental Science systems & Solutions, Web enhanced edition. 639p.
15. Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
16. Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p.
17. Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut
18. Survey of the Environment, The Hindu (M)
19. Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science (TB) XI
20. Trivedi R.K., Handbook of Environmental Laws, Rules Guidelines, Compliances and Stadards, Vol I and II, Enviro Media (R)
21. Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (TB)

Website Sources:

- <https://www.hzu.edu.in/bed/E%20V%20S.pdf>
- https://www.ametuniv.ac.in/exam_attachment/Question%20Bank/UG/Marine-Bio-Technology/EVS.pdf
- https://content.kopykitab.com/ebooks/2017/04/10749/sample/sample_10749.pdf
- <http://www.tezu.ernet.in/denvsc/IDC/Study%20material%20Unit%201.pdf>

CORE COURSES
IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (III Semester)
BHSC-301T: Physical Science

COURSE OBJECTIVES

- To develop basic understanding of different chemical and physical concepts and to relate them with everyday life for skill development and employability.
- To enhance their skills in handling different equipment for skill development and employability.

Section A: Chemistry

UNIT I: Solutions and Household Chemicals **(6 Sessions)**

- Types of solutions, different ways of expressing concentration of solutions for skill development and employability
- Colloids and its properties, types of colloids, colloids in daily life
- Chemicals in foods- preservatives and colourants
- Antiseptics and disinfectants for skill development and employability
- Soaps and detergents for better skilling of entrepreneurship

UNIT II: Acids, Bases, Salts and Redox reactions **(8 Sessions)**

- Acids and bases, their definitions (Arrhenius, Lewis and Bronsted), examples
- Neutralization reaction, salts, their types with simple equations and examples for skill development
- pH and pH scale, buffer solutions
- Applications in everyday life
- Concept of oxidation and reduction for skill development
- Oxidizing and reducing agents
- Applications in daily life like combustion, corrosion etc

Section B: Physics

UNIT III: Mechanics and electricity **(8 Sessions)**

- Measurements of Physical Quantities- Units and dimensions
- Different types of motions, Laws of motions and examples
- Gravity and Gravitation, variation of g with height and depth
- Work, Power and Energy for skill development
- Concept of current, voltage and resistance- Ohm's Law
- Conductors and Insulators of electricity and their applications
- Household wiring- safety features- fuse, MCB and earthing for better skilling of entrepreneurship
- Efficient transmission of electric power
- Solar energy, Wind energy

UNIT IV: Consumer Awareness **(4 Sessions)**

- Guarantee and warranty of electrical household equipments for better skilling of entrepreneurship
- Precautions while using equipments and servicing of equipment like refrigerator, AC and washing machine for better skilling of entrepreneurship

Course Outcomes: Students completing this course will be able to:

CO 1. Understand about different chemicals/compounds, their reactions, applications in everyday life and their health hazards for global skill development and employability

CO 2. Ability to correlate structures of compounds with their properties and functions for skill development and national employability

CO 3 Develop understanding of the basic principles, theories and laws of physics and correlating them with real life situations for better skilling of local entrepreneurship

CO 4. Understand the basic precautions to be taken when working with electrical appliances and acquire skills to handle them cautiously for better skilling of entrepreneurship

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	3	2	3	1	2	3	1	3	1
CO2	3	2	3	3	1	3	1	2	1	2	2	1
CO3	2	1	2	1	2	3	1	1	1	2	3	1
CO4	2	3	2	3	1	3	1	2	3	1	2	1

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

CO- Curriculum Enrichment Mapping (Please ✓ wherever required)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	2
CO2	3	3	2
CO3	3	2	3
CO4	3	2	3

SUGGESTED READINGS:

- Ahluwalia, V. K., Dhingra, S., Gulati, A., (2005), College Practical Chemistry, New Delhi University Press (India) Pvt. Ltd.
- Bahl A. and Bahl B.S, (2012). Advanced Organic Chemistry. New Delhi: S. Chand and Sons
- Jacob T. (1979). Textbook of Applied Chemistry. Noida: McMillan India Ltd.
- Lal, S. (1995). Fundamentals Physics. Delhi: Pradeep Publication.
- Morrison and Boyd, (2011). Organic Chemistry. New Delhi: Pearson Education.
- Singh H. (2001). B.Sc. Practical Physics. New Delhi: S.Chand and Co.
- Vogel (2009). Quantitative Chemical analysis. New Delhi: Pearson Education.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (III Semester)
BHSC-351P: Physical Science (Practical)

COURSE OBJECTIVES

- To develop basic understanding of different chemical and physical concepts and to relate them with everyday life for skill development and employability.
- To enhance their skills in handling different equipment for skill development and employability.

PRACTICAL:

Chemistry

- Preparation of standard solutions
- Determination of pH of different solutions
- Volumetric analysis
- Titration of strong acid vs strong base (Acid-base titration)
- Titration of strong acid vs weak base (Acid-base titration)
- Titration of weak acid vs strong base (Acid-base titration)
- Titration of potassium permanganate vs Mohr's salt (Redox titration)
- Detection of functional groups- Acids, Alcohols, Aldehydes and Ketones

Physics

- Determination of the volume of the given body using Vernier Callipers e.g. biscuits for skill development
- To determine the correct weight of a body using a balance for skill development
- To verify principle of moments and to determine the weight of unknown body using a lever
- Comparison of thermometric scales of temperature using graph method
- Determination of focal length of double convex lens by one pin method for skill development
- To determine the magnifying power of telescope by linear method
- Setting up of two way lighting circuit and calculation of cost of electricity consumed
- Repair and testing of electric iron and fuse for skill development and employability
- To verify the Ohm's Law and determine the resistance of conductor by graph method
- Determination of 'g' by simple pendulum method

Course Outcomes: Students completing this course will be able to:

CO 1. Understand about different chemicals/compounds, their reactions, applications in everyday life and their health hazards for global skill development and employability

CO 2. Ability to correlate structures of compounds with their properties and functions for skill development and national employability

CO 3 Develop understanding of the basic principles, theories and laws of physics and correlating them with real life situations for better skilling of local entrepreneurship

CO 4. Understand the basic precautions to be taken when working with electrical appliances and acquire skills to handle them cautiously for better skilling of entrepreneurship

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	3	2	3	1	2	3	1	3	1
CO2	3	2	3	3	1	3	1	2	1	2	2	1
CO3	2	1	2	1	2	3	1	1	1	2	3	1
CO4	2	3	2	3	1	3	1	2	3	1	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	2
CO2	3	3	2
CO3	3	2	3
CO4	3	2	3

SUGGESTED READINGS:

- Bahl A. And Bahl B.S.(2016). A textbook of Organic Chemistry. New Delhi: S. Chand and Sons.
- Khan N. (2008). Physics New Delhi: Oxford University Press.
- Peet L.J. (1970). Household Equipment (6th ed) New York: John Wiley & Sons.
- Puri, Sharma and Pathania. (2016). Principles of Physical Chemistry. New Delhi: Vishal Publishing Company.
- Gomber K.L., Gogia K.L. (2015). Fundamental Physics Jalandhar: Pradeep publications.
- Gaur R.K. and Gupta S.L. (2008) Engineering Physics. New Delhi: Dhanpat Rai Publications

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (III Semester)
BHSC-302T: Life Span Development II

COURSE OBJECTIVES

- To learn about the various changes that takes place in different domains of development during adolescence, young, middle and late adulthood for skill development
- To learn about different techniques, tools of data collection and psychometric measurement for skill development

UNIT I: Introduction to Adolescence (4 Sessions)

- Definition and theoretical perspective for skill development
- Physical and physiological changes
- Cognitive and language development
- Socio-emotional and moral development for skill development

UNIT II: Young Adulthood (4 Sessions)

- Transition from adolescence to adulthood
- Developmental tasks of adulthood for skill development
- Socio-emotional development: Relationships, Marriage and Parenting for skill development
- Cognition and creativity: Work, Vocation and leisure for skill development

UNIT III: Middle and Late Adulthood (4 Sessions)

- Developmental tasks of middle and late adulthood for skill development
- Physical and physiological changes and aging for skill development

UNIT IV: Roles and Relationship (4 Sessions)

- Diversity in roles and relationships for skill development
- Parenting and grand parenting growing children
- Cultural perspective on aging and death for skill development

Course Outcomes: Students completing this course will be able to:

CO 1. Learn about the various changes that takes place in different domains of development during adolescence for global skill development.

CO 2. Learn about the diverse changes that they experienced in different development domains during young adulthood for global skill development.

CO 3. Understanding about the various transformations that takes place in different domains of development during middle and late adulthood for skill development

CO 4. Understanding about the family relationships for global skill development

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	3	1	2	3	3	2	1
CO2	3	3	2	3	1	3	1	2	1	3	2	1
CO3	3	1	2	1	3	3	1	1	1	3	3	1
CO4	3	3	2	2	2	3	1	2	3	1	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1

SUGGESTED READINGS:

- Berk, L. E. (2007). Development through the Lifespan. Delhi, Pearson Education
- Papalia,D.E. and Martorell, G. (2015).Experience Human Development, McGraw-Hill Education
- Rice. F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice Hall.
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata McGraw-Hill.
- Singh, A. (Ed). (2015). Foundations of Human Development: A Life Span Approach. New Delhi: Orient Black Swan.
- Harris, M. and Butterworth, G. (2002). Developmental Psychology: A Student’s Handbook. Psychology Press.
- Hurlock, E. B. (1973). Adolescent Development. Mc Graw -Hill Education.
- Journal of Developmental Psychology
- Lefrancois, G.R. (1996). The Lifespan. Wadsworth Publishing Company.
- Rutter, M. and Rutter, M. (1992). Developing Minds. Challenge and continuity across the life span. London: Penguin.
- Tennant, M. and Pogson, P. (1995) Learning and Change in the Adult Year, San Francisco: Jossey-Bass.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (III Semester)
BHSC-352P: Life Span Development II (Practical)

COURSE OBJECTIVES

- To learn about the various changes that takes place in different domains of development during adolescence, young, middle and late adulthood for skill development
- To learn about different techniques, tools of data collection and psychometric measurement for skill development

PRACTICAL:

- Methods of study and their use: - Reviewing Interview and Observation -Questionnaire - Case study - Sociometry for skill development
- Case profile to study adolescence/ young adulthood/ late adulthood for skill development
- Depictions of adolescence and adulthood in media: Audio-visual, Print and Theatre
- Psychological tests: Thematic Apperception Test (TAT), WAIS (Wechsler Adult Intelligence Scale), Test assessing SELF CONCEPT for skill development

Course Outcomes: Students completing this course will be able to:

CO 1. Learn about the various methods of study for global skill development

CO 2. Learn about the case profile to study adolescence/young adulthood/ late adulthood for global skill development

CO3. Understand about the depictions of Adolescence in media for global skill development

CO 4. Acquire an understanding about the various psychological tests for skill development

PO – CO Mapping

(Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	3	1	2	3	3	2	1
CO2	3	3	2	3	1	3	1	2	1	3	2	1
CO3	3	1	2	1	3	3	1	1	1	3	3	1
CO4	3	3	2	2	2	3	1	2	3	1	2	1

CO- Curriculum Enrichment Mapping

(Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1

SUGGESTED READINGS:

- Berk, L. E. (2007). Development through the Lifespan. Delhi, Pearson Education
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata McGraw- Hill.
- Sharma, N. (2009). Understanding Adolescence. National Book Trust, India.
- Singh, A. (Ed). (2015). Foundations of Human Development: A Life Span Approach. New Delhi: Orient Black Swan.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (III Semester)
BHSC-303T: Nutrition for the Family

COURSE OBJECTIVES

- To understand principles of planning a nutritionally balanced diet for skill development and employability
- To apply knowledge of nutrition for planning meals as per individual needs for skill development and employability

UNIT I: Basic Concepts of Meal Planning

(6 Sessions)

- Rich sources of nutrients, Concept of food groups and balanced diet for skill development and employability
- Food exchange list for skill development
- Nutrient requirements and recommendations- Concept and uses of RDA for skill development and employability
- Factors affecting meal planning and food related behaviour.
- Dietary guidelines for Indians and food pyramid for skill development and employability

UNIT II: Nutrition During the Adult Years

(8 Sessions)

Physiological changes, RDA, nutritional guidelines, nutritional concerns and healthy food choices for skill development:

- Adult
- Pregnant woman
- Lactating mother
- Elderly

UNIT III: Nutrition during Childhood

(8 Sessions)

Growth and development, growth reference/ standards, RDA, nutritional guidelines, nutritional concerns and healthy food choices for skill development

- Infants
- Preschool children
- School children

UNIT IV: Nutrition during Adolescence

(8 Sessions)

Growth and development, growth reference/ standards, RDA, nutritional guidelines, nutritional concerns and healthy food choices in Adolescents for skill development

Course Outcomes: Students completing this course will be able to:

CO 1. Understand the principles of planning of nutritionally adequate meals for the family and apply knowledge of principles of nutrition in exercising food choices consonant with good health for global skill development and national employability.

CO 2. Develop understanding about the nutritional needs and concerns during adult years for global skill development.

CO 3. Develop understanding about the nutritional needs and concerns during childhood for skill development.

CO 4. Develop understanding about the nutritional needs and concerns during adolescence for global skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	3	3	3	2	3	1	2	1
CO2	3	2	3	3	1	3	3	2	1	3	2	1
CO3	3	1	2	1	2	3	3	1	1	3	2	1
CO4	3	3	2	3	1	3	3	2	3	1	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1

SUGGESTED READINGS:

- ICMR (2011) Dietary Guidelines for Indians. Published by National Institute of Nutrition, Hyderabad.
- Chadha R and Mathur P eds. (2015). Nutrition : A Lifecycle Approach. Orient Black swan, New Delhi, Chapter 20, pg 302-320, Chapter 21, pg 321-332, Chapter 22, pg 333-342, Chapter 23,pg 343-353
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Delhi: Elite Publishing House Pvt. Ltd.,

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (III Semester)
BHSC-353P: Nutrition for the Family (Practical)

COURSE OBJECTIVES

- To understand principles of planning a nutritionally balanced diet for skill development and employability
- To apply knowledge of nutrition for planning meals as per individual needs for skill development and employability

PRACICAL:

- **Introduction to Meal Planning** for skill development and employability

Use of IFCT book

Use of food exchange list

- **Planning and Preparation of Diets and Dishes** for skill development

Young adult

Pregnant and Lactating woman

Preschool child

School age child and adolescents

Elderly

- **Planning Complementary Foods for Infants** for skill development and employability

Course Outcomes: Students completing this course will be able to:

CO 1. Understand the principles of planning of nutritionally adequate meals for the family for global skill development and employability.

CO 2. Apply knowledge of principles of nutrition in exercising food choices consonant with good health for global skill development.

CO 3. Develop understanding about the nutritional needs and concerns of an individual from childhood to adult years for global skill development and national employability.

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	3	2	3	3	2	2		3	
CO2	3	2	2	3		3	3	2		3	3	
CO3	3		3		2	3	3			3	3	

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	3
CO2	3	3	2
CO3	3	2	3

SUGGESTED READINGS:

- Chadha R and Mathur P eds.(2015) Nutrition : A Lifecycle Approach. Orient Blackswan, New Delhi.
- ICMR (2010) Recommended Dietary Allowances for Indians .Published by National Institute of Nutrition, Hyderabad.
- ICMR (2011) Dietary Guidelines for Indians. Published by National Institute of Nutrition, Hyderabad.
- Khanna K, Gupta S, Seth R, Passi SJ, Seth R, Mahna R, Puri S (2016). Textbook of Nutrition and Dietetics.2nd Edn. Phoenix Publishing House Pvt. Ltd.
- Longvah T, Ananthan R, Bhaskarachary K and Venkaiah K (2017). Indian Food Composition Tables. National Institute of Nutrition, ICMR, Hyderabad.
- Seth V, Singh K and Mathur P (2018). Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual. 6th Edn. Elite Publishing House Pvt. Ltd. New Delhi.

CORE COURSES
IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (IV Semester)
BHSC-401T: Life Sciences

COURSE OBJECTIVES

- The students would be able to understand diversity of plant and animal kingdom along with basic concept of cell and tissue for skill development.
- The students would be able to understand the concept of propagation and get hands on experience to propagate plants by artificial methods of vegetative propagation with underlying mechanisms of plant physiology for skill development and employability.
- The students would understand the concepts of genetics and learn about the various hereditary diseases along with recent trends in biotechnology for skill development and employability

SECTION A- BOTANY

UNIT I: Introduction to Plant Kingdom for skill development **(4 Sessions)**

- Classification of Plant Kingdom
- Angiospermic plants (Flower with details of its parts)
- Formation of fruit, seed and embryo
- Structure of monocot and dicot seed and seed germination

UNIT II: Anatomy of Plants for skill development and employability **(4 Sessions)**

- Plant cell- structure of chloroplast and cell wall of flowering plants
- Types of plant tissue- meristematic and permanent tissue
- Simple tissue- parenchyma, collenchyma, sclerenchyma and stomata
- Complex tissue- xylem and phloem

UNIT III: Garden **(2 Sessions)**

- Kitchen garden for skill development and employability

SECTION B - ZOOLOGY

UNIT IV: Animal Diversity and Cell Biology for skill development and employability **(4 Sessions)**

- Classification of animal kingdom
- Chordates up to 5 major classes, characteristics with examples
- Non-chordates up to phyla, characteristics with examples
- Cell theory, electron microscopic structure and function of a cell
- Cell division and its significance

UNIT V: Parasitology and Economic Entomology for skill development and employability **(4 Sessions)**

- Parasites and human diseases
- Plasmodium, Giardia, Entamoeba, Taenia, Ascaris
- Economic importance and control of common household pests e.g. cockroach, housefly, mosquitoes and termites
- Identification and control of important stored grain pests

Course Outcomes: Students completing this course will be able to:

CO 1. Identify the unique characteristics of plant diversity for global skill development

CO 2. Understand the concept and develop plant propagation skills for global skill development and employability

CO 3. Understand the management of Kitchen Garden for skill development and employability

CO 4. Acquire understanding of fundamentals of cell biology for skill development and national employability

CO 5. Learn basic concepts of role of micro-organisms in soil fertility for global skill development and employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	2	3	3	3	1	2	3	1	3	1
CO2	2	3	2	3	1	2	1	2	1	2	2	1
CO3	3	1	2	1	3	3	1	1	1	3	2	1
CO4	3	3	3	2	1	2	1	2	3	1	2	1
CO5	2	2	1	1	1	1	1	1	2	1	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	1

SUGGESTED READINGS:

- Jordan and Verma, 2009. Invertebrate Zoology, S. Chand and Co. Ltd, New Delhi .
- Raven P. and Johnson G. 2010. Biology. Tata McGraw Hill Publication, New Delhi.
- Soni N.K. and Soni V. 2010. Fundamentals of Botany. Tata McGraw Hill Publication, New Delhi.
- Chadha K.L.2012. Handbook of Horticulture. ICAR Publication, New Delhi.
- Gopalswamianger K.S. 1991, Complete gardening in India, Messers Nagaraj and Co. Madras.
- Gupta R. 2015 Fundamentals of Zoology: Theory and Practice. Elite Publishing House Pvt. Ltd. New Delhi.
- Hartman H.T and Kester D 1986.:Plant Propagation, Principles and Practices Prentice Hall of India Pvt. Ltd. New Delhi.
- Kotpal,2000,ModernTextbook of Zoology, Rastogi Publications, Meerut.
- Upadhyay R. (2017). Elements of Plant Science, Elite Publishing House, New Delhi.
- Vij and Gupta (2011). Applied Zoology Phoenix Publishing House, New Delhi.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (IV Semester)
BHSC-451P: Life Sciences (Practical)

COURSE OBJECTIVES

- The students would be able to understand diversity of plant and animal kingdom along with basic concept of cell and tissue for skill development.
- The students would be able to understand the concept of propagation and get hands on experience to propagate plants by artificial methods of vegetative propagation with underlying mechanisms of plant physiology for skill development and employability.
- The students would understand the concepts of genetics and learn about the various hereditary diseases along with recent trends in biotechnology for skill development and employability

PRACTICAL:

SECTION A- BOTANY

- Study of permanent slides of dicot stem, monocot stem, dicot and monocot root, dorsiventral leaf and isobilateral leaf for skill development
- Propagation of plants by seed and vegetative methods for skill development and employability.
- Preparation of temporary mounts (a) onion peel, (b) Epidermis of Rhoeo
- Physiology experiments: (a) Photosynthesis (b) Transpiration for skill development and employability.
- Floral description of few angiospermic families

SECTION B- ZOOLOGY

- Identification and classification of representative of animal kingdom (2-3 specimens from each class/ phylum)
- Identification and classification of common animals for skill development
- Study of cells – neurons, blood cells, squamous epithelial cells
- Pedigree Chart preparation and analysis for skill development

Course Outcomes: Students completing this course will be able to:

CO 1. Identify the unique characteristics of animal and plant diversity. They would also acquire understanding of fundamentals of cell biology and human genetics for skill development

CO 2. Understand the concept and develop plant propagation skills, management of Kitchen Garden etc for global skill development and employability

CO 3. Learn basic concepts of important physiological processes of plants and role of micro-organisms in soil fertility for skill development.

CO 4. Control/ prevent parasitic diseases and acquire pest management skills for skill development and employability.

CO 5. Acquire basic understanding of various aspects of biotechnology, awareness in regard to application of biotechnology in animal husbandry and human welfare with ethical and social issues for skill development and national employability.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	2	2	3	2	1	2	3	1	2	1
CO2	2	3	2	3	1	2	1	2	1	3	3	1
CO3	3	1	2	1	3	2	1	1	1	2	2	1
CO4	3	3	3	2	1	3	1	2	3	1	3	1
CO5	2	2	2	1	1	3	1	2	1	3	1	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	3	2
CO3	3	2	1
CO4	3	3	2
CO5	3	3	2

SUGGESTED READINGS:

- Jordan and Verma, 2009. Invertebrate Zoology, S. Chand and Co. Ltd, New Delhi .
- Raven P. and Johnson G. 2010. Biology. Tata McGraw Hill Publication, New Delhi.
- Soni N.K. and Soni V. 2010. Fundamentals of Botany. Tata McGraw Hill Publication, New Delhi.
- Chadha K.L.2012. Handbook of Horticulture. ICAR Publication, New Delhi.
- Gopalaswamianger K.S. 1991, Complete gardening in India, Messers Nagaraj and Co. Madras.
- Gupta R. 2015 Fundamentals of Zoology: Theory and Practice. Elite Publishing House Pvt. Ltd. New Delhi.
- Hartman H.T and Kester D 1986.:Plant Propagation, Principles and Practices Prentice Hall of India Pvt. Ltd. New Delhi.
- Kotpal,2000,ModernTextbook of Zoology, Rastogi Publications, Meerut.
- Upadhyay R. (2017). Elements of Plant Science, Elite Publishing House, New Delhi.
- Vij and Gupta (2011). Applied Zoology Phoenix Publishing House, New Delhi.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (IV Semester)
BHSC-402T: Personal Finance and Consumer Studies

COURSE OBJECTIVES

- To familiarize the students with the changing socio-economic environment and consumer behavior for skill development
- To strengthen the financial management practices of the students for wise consumer behavior for skill development and employability
- To have an overview of the consumer problems, consumer movement and consumer protection for better skilling of entrepreneurship

UNIT I: Income and Expenditure

(8 Sessions)

- Household Income – Types, Sources, Supplementation of family income
- Income management – significance of budgeting, steps of making a budget, controlling through household accounts and evaluation for skill development and employability
- Factors influencing expenditure pattern
- Family savings and investments- need, principles, channels of investment, tax implications
- Consumer credit- need, sources for skill development and employability
- Personal finance management for skill development and employability

UNIT II: Consumer in India: Consumer problems and education

(8 Sessions)

- Definition of a consumer
- Role of consumers in the economy, National Income, Per Capita Income
- Types of consumer problems – products and service related, Causes and remedies
 - Guidelines for wise buying practices for better skilling of entrepreneurship
- Consumer education and empowerment, sustainable consumption
- Changing nature of the business world –e-commerce, e-business for better skilling of entrepreneurship

UNIT III: Consumer Protection

(8 Sessions)

- Consumer protection, Consumer rights and responsibilities for better skilling of entrepreneurship
- Consumer organizations – origin, functioning, role and types
- Basic legislative framework for consumer protection in India, Consumer Protection Act 1986 (COPRA), Alternative redressal mechanisms
- Standardization and quality control measures for skill development and employability

Course Outcomes: Students completing this course will be able to:

- CO 1. Gain knowledge of income, saving and investment management in the changing socio economic environment for global skill development and employability
- CO 2. Understand the role of consumer in the economy, consumer problems, education and empowerment for better skilling of local entrepreneurship
- CO 3. Comprehend issues related to consumer protection, legislative measures and redressal mechanisms for global skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	2	2	2	3	1	2	2	1	2	1
CO2	2	2	3	2	1	3	1	2	1	3	2	1
CO3	2	1	2	1	2	3	1	1	1	2	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	2
CO2	3	3	2
CO3	3	2	3

SUGGESTED READINGS:

- Mital M., Jain, S., & Mehta, C. (2015). Family finance and Consumer Studies: A Practical Manual, Second Edition. New Delhi: Elite Publishing House Pvt. Ltd.
- Mital, M., Sawhney, H. K. (2015). Family Finance and Consumer Studies. New Delhi: Elite Publishing House Pvt. Ltd.
- Seetharaman, P. and Sethi, M. (2001). Consumerism: Strength and Tactics. New Delhi: CBS Publishers.
- Arora, R. Consumer Grievances Redressal. New Delhi: Manak Publications.
- Khanna, S. R., Hanspal S., Kapoor S. & Awasthi H.K. (2007). Consumer Affairs. Universities Press India Pvt. Ltd.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (IV Semester)
BHSC-452P: Personal Finance and Consumer Studies (Practical)

COURSE OBJECTIVES

To familiarize the students with the changing socio-economic environment and consumer behavior for skill development

- To strengthen the financial management practices of the students for wise consumer behavior for skill development and employability
- To have an overview of the consumer problems, consumer movement and consumer protection for better skilling of entrepreneurship

PRACTICAL

- Understanding and designing standardization marks for better skilling of entrepreneurship.
- Evaluation and designing of informative and attractive labels of different type of food products
- Evaluation and designing of advertisements in the print media including products, services and social ads
- Case study of banks and post offices to understand their services and products for skill development
- Learning to fill different bank forms for skill development
- Analysis of consumer redressal through case study approach
- Survey on consumer issues
- Food adulteration tests for better skilling of entrepreneurship
- Personal Income Tax calculation for better skilling of entrepreneurship

Course Outcomes: Students completing this course will be able to:

CO 1. Gain knowledge of income, saving and investment management in the changing socio economic environment for global skill development

CO 2. Understand the role of consumer in the economy, consumer problems, education and empowerment for global skill development

CO 3. Comprehend issues related to consumer protection, legislative measures and redressal mechanisms for better skilling of local entrepreneurship

CO 4. Gain practical knowledge of critically evaluating and designing various consumer aids for skill development and national employability

CO 5. Have a practical understanding of various existing redressal mechanisms for better skilling of local entrepreneurship

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	2	2	2	3	1	2	2	1	2	1
CO2	2	2	3	2	1	3	1	2	1	3	2	1
CO3	2	1	2	1	2	3	1	1	1	2	2	1
CO4	3	3	2	3	1	2	1	3	3	1	3	1
CO5	2	1	3	1	1	2	1	1	3	1	1	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	3
CO4	3	3	1
CO5	3	3	1

SUGGESTED READINGS:

- Mital M., Jain, S., & Mehta, C. (2015). Family finance and Consumer Studies: A Practical Manual, Second Edition. New Delhi: Elite Publishing House Pvt. Ltd.
- Mital, M., Sawhney, H. K. (2015). Family Finance and Consumer Studies. New Delhi: Elite Publishing House Pvt. Ltd.
- Seetharaman, P. and Sethi, M. (2001). Consumerism: Strength and Tactics. New Delhi: CBS Publishers.
- Arora, R. Consumer Grievances Redressal. New Delhi: Manak Publications.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (IV Semester)
BHSC-403T: Communication Systems and Social Change

COURSE OBJECTIVES

- To gain an insight on the various communication systems for skill development.
- To highlight the nature and scope of media (traditional, mass and new) for social change for skill development and employability.

UNIT I: Understanding Self **(8 Sessions)**

- Awareness of self in communication
- Intrapersonal Communication for skill development
- Self-concept and self esteem
- Enhancing self-confidence for skill development

UNIT II: Interpersonal Communication **(8 Sessions)**

- Concept, types and functions of interpersonal communication for skill development
- Dyadic, small and large group communication
- Stages in human relationship development
- Small group communication: types, networks and functions
- Theories of small group communication for skill development

UNIT III: Organizational, Public and Intercultural Communication **(8 Sessions)**

- Organizational communication: concept, types, functions and networks
- Public communication- concept, networks and techniques for skill development and employability
- Intercultural communication- concept, stages and barriers
- Relationship between culture and communication

UNIT IV: Mass Communication and Mass Media **(8 Sessions)**

- Mass Communication- concept, significance, functions and elements for skill development and employability
- Theories and models of mass communication
- Mass Media- characteristics and significance of print, electronic and web based media for skill development and employability
- Print Media: types, nature, characteristics, reach, access for skill development and employability
- Radio: types, nature, characteristics, reach, access.
- Television and cinema: types, nature, characteristics, reach, access.
- New Media: types, characteristics, reach and access for skill development and employability

Course Outcomes: Students completing this course will be able to:

- CO 1. Understanding of various communication systems for global skill development
- CO 2. Appreciate nuances of various communication transactions for effective communication for skill development
- CO 3. Understand role culture in communication for skill development and national employability
- CO 4. Gain insight into the range and scope of traditional media, mass media, ICTs and New Media especially for social change for global skill development and national employability

PO – CO Mapping**(Please write 3, 2, 1 wherever required)****(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10		PO11	PO12	
CO1	2	3	3	3	2	3	1	2	3	1		2	1	
CO2	3	3	2	3		3	1	2	1	2		3	1	
CO3	2	1	2	1	2	3	1	1	1	2		2	1	
CO4	2	2	3	3	1	3	1	2	3	1		2	1	

CO- Curriculum Enrichment Mapping**(Please write 3, 2, 1 wherever required)****(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)**

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	2
CO3	3	3	2
CO4	3	3	2

SUGGESTED READINGS:

- Anand, S. & Kumar, A. (2016). Dynamics of Human Communication. New Delhi: Orient Black Swan. ISBN: 9788125063254; Chapter 14, 15, 16
- Barker, L & Gaut, D. (1996) Communication. Pearson Education, 7th edition, USA.;
- Baran, S. (2014) Mass Communication Theory. Wadsworth Publishing
- Stevenson, D. (2002) Understanding Media Studies: Social Theory and Mass Communication, Sage Publications
- Vivian, J. (1991) The Media of Mass Communication

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science II Year (IV Semester)
BHSC-453P: Communication Systems and Social Change (Practical)

COURSE OBJECTIVES

- To gain an insight on the various communication systems for skill development.
- To highlight the nature and scope of media (traditional, mass and new) for social change for skill development and employability.

PRACTICAL:

- Exercises for understanding Self: Johari window, SWOT analysis for skill development
- Understanding culture through traditional media for skill development
- Audience analysis- readership, listenership and viewership studies for skill development and employability
- Content analysis of mass media for skill development and employability

Course Outcomes: Students completing this course will be able to:

CO 1. Understanding of various communication systems for global skill development

CO 2. Appreciate nuances of various communication transactions for effective communication for skill development

CO 3. Understand role culture in communication for skill development and national employability

CO 4. Gain insight into the range and scope of traditional media, mass media, ICTs and New Media especially for social change for skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	3	3	2	3	1	2	3	1	2	1
CO2	3	3	2	3	1	3	1	2	1	2	3	1
CO3	2	1	2	1	2	3	1	1	1	2	2	1
CO4	2	2	3	3	1	3	1	2	3	1	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	3	2
CO4	3	3	2

SUGGESTED READINGS:

- Anand, S. & Kumar, A. (2016). Dynamics of Human Communication. New Delhi: Orient Black Swan. ISBN: 9788125063254
- Barker, Larry Lee. (1990) Communication. Eaglewood Cliffs, New Jersey: Prentice Hall
- DeVito, J. (1998). Human Communication. New York: Harper & Row.
- McQuail, D. (2000) Mass Communication Theories. London: Sage Publications
- Baran, S. (2014) Mass Communication Theory. Wadsworth Publishing
- Stevenson, D. (2002) Understanding Media Studies: Social Theory and Mass Communication, Sage Publications
- Vivian, J. (1991) The Media of Mass Communication

IFTM University, Moradabad
Course Code: BHSC-501
NUTRITION THERAPY

Course Objective

- To familiarize the students with newer concepts in dietary management of various disorders and diseases to provide employability & skills.
- Understand the role of nutrition for good health for skill development.
- To obtain knowledge of different Therapeutic diets and their preparation to provide employability & skills.
- To develop capacity and attitudes for taking up dietetics as a profession for skill development.

UNIT I

(8 Sessions)

Therapeutic Nutrition – Importance, different types of diets, modification of normal diets to therapeutic nutrition, methods of feeding patients, pre- and post-operation diets.

Diet in deficiency diseases – Protein Energy Malnutrition, classification of PEM according to Gomez welcome group of IAP (Indian associate Pediatrician) to provide employability & skills.

UNIT II

(8 Sessions)

Causes, symptoms, dietary modifications, prevention and nutritional management in following:

- Diabetes Mellitus- IDDM, NIDDM
- Hypertension
- Heart Diseases – Coronary Heart Disease, hypertension, Atherosclerosis and ischemic Heart Disease for skill development.

UNIT III

(8 Sessions)

Dietary management and diagnosis of cancer Causes, symptoms and dietary modification in following:

- Acute and Chronic renal failure Nephritis
- Kidney stones for skill development.

UNIT IV

(6 Sessions)

Causes, symptoms, dietary modifications, prevention and nutritional management in following:

- Diarrhoea and constipation.
- Dyspepsia, gastritis and peptic ulcer.
- Hepatitis.
- Acute and chronic fever.
- Diets during underweight, overweight and obesity to provide employability & skills.

UNIT V

(8 Sessions)

Definition of the terms: Nutrition, Nutritional status, health, malnutrition, under-nutrition, over nutrition and diet therapy. Assessment of nutritional status and methods of conducting dietary surveys and dietary counseling to provide employability & skills.

Course outcomes:**By the end of the course the students will be able to**

CO1. To acquire basic knowledge of nutrient requirements, recommended dietary allowances, and dietary modification under different physiological conditions to provide employability & skills.

CO2. To acquire basic knowledge of food groups, food exchange system and their nutritional significance, and application of knowledge acquired for healthy eating to provide employability & skills.

CO3. To develop practical skills in planning and management of diets for the different age groups under normal/physiological conditions keeping in mind the dietary guidelines to provide employability & skills.

CO4. To gain knowledge on the nature and scope of therapeutic nutrition; and understand the principles of dietary modification and apply in planning for skill development.

CO5. To understand nutrition-related diseases of the: gut, liver, gallbladder, pancreas, and heart for skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)**(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	1	1	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	1	2	3	1	1	1	1	1	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2
CO5	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)**(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)**

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	2	1

Suggested Readings:

1. Clinical Nutrition and Dietetics- Autia F.P.
2. Nutrition in Health and disease Cooprel Barker E. Mitchell, h Ry Moergen, H Searman H.C.
3. Nutritive value of Indian Foods C Gopalan.
4. Robinson, Lawler, Chenoweth & Garwick, 1987. Normal & Therapeutic Nutrition. 17th Ed. Macmillan Publishing Co.
5. Shills ME & Young VR. Modern Nutrition in Health & Disease 7th Ed. Lea & Febiger.
6. Stanfield PS, Hui YH & American Dietetics Association 1992. Nutrition & Diet Therapy. 2nd Ed. Jones & Bartlett Publ.
7. Sumati R. Mudambi and M.V. Rajagopal, Fundamentals of Foods, Nutrition and Diet Therapy, 5th Edition NEW AGE INTERNATIONAL (P) LIMITED, PUBLISHERS 4835/24, Ansari Road, Daryaganj, New Delhi - 110002 Visit us at www.newagepublishers.com, ISBN (13) : 978-81-224-2972-5 , 2007.
8. Peggy S. Stanfield, and Y. H. Hui, PhD, Nutrition and Diet Therapy Self-Instructional Approaches, World Headquarters Jones and Bartlett Publishers 40 Tall Pine Drive Sudbury, MA 01776 978-443-5000 info@jbpub.com www.jbpub.com, Copyright © 2010 by Jones and Bartlett Publishers, LLC
9. Sheila Buckley Tucker and Vera Dauffenbach Nutrition and Diet Therapy for Nurses, Second edition. | Boston : Pearson, [2019] | Includes bibliographical references and index, LCCN 2017023975 (print) | LCCN 2017025831 (ebook) | ISBN 9780134454306 (ebook) | ISBN 0134454308 (ebook) | ISBN 9780134442877 | ISBN 0134442873 (2019)
10. Ruth A. Roth, MS, RD., Nutrition & Diet Therapy, 10th Edition , ISBN-13: 978-14354-8629-4 ISBN-10: 1-4354-8629-3, 5 Maxwell Drive Clifton Park, NY 12065-2919 USA
11. Textbook of Clinical Nutrition and Functional Medicine, Vol. 2: Protocols for Common Inflammatory Disorders March 2016, Edition: 4th Edition, Publisher: International College of Human Nutrition and Functional Medicine ICHNFM.ORG, ISBN: 978-0990620440.

Website Sources:

- <https://www.dietitiansathome.com/medical-nutrition-therapy-mnt>;
- [https://www.pdfdrive.com/ \[www.eatright.org\]\(http://www.eatright.org\)](https://www.pdfdrive.com/www.eatright.org);
- <http://www.choosemyplate.gov>;
- <http://www.fda.gov/food/default.htm>;
- <http://www.nutrition.gov>;
- www.consumerlab.com;
- www.publichealth.org;
- <https://www.nutritionist-resource.org.uk/> ;

IFTM University, Moradabad
Course Code: BHSC-502
COMMUNITY DEVELOPMENT

Course objective

To develop and appreciate the basic characteristics of community development, how social, economic, political and governance factors affect and impact community development, and how gender issues and climate change affect community development for skill development.

UNIT I

(12 Sessions)

History of Community Development: Definition and importance of community development. Study of various community development programmes - Shriniketan. Rural Reconstruction, Gurgaon Experiment, Marthandam project, Gandhian Constructive Programme, Etawah Pilot Project, Firka Development Scheme, Indian Village Service (I.V.S.) and Nilokheri Experiment, Role of NGO in community development to provide employability & skills.

UNIT II

(14 Sessions)

- Extension Teaching Process: Definition of extension teaching, steps involved in extension teaching. Factors contributing to extension teaching, Principles of extension teaching and desirable traits of a teacher for effective extension work for skill development.
- Extension Learning Process: Definition of extension learning. Learning experience. Laws of learning. Principles of learning. Factors affecting learning and ideal learning situation to achieve the success.

UNIT III

(10 Sessions)

Innovation Decision Process: Definition of innovation decision process, steps involved in the adoption process, rate of adoption, innovativeness, diffusion, characteristics of innovations, classification of adopters and their characteristics to provide employability & skills.

UNIT IV

(10 Sessions)

Support structures and their functions to provide employability & skills.

- Central social welfare board.
- Welfare programs: JRT, IRDP, ICDS, DWACRA. National voluntary Agencies: CAPART, KVIC, ICAR Elected Panchayat.

UNIT V

(8 Sessions)

Critical review of community development programs in five year plans to provide employability & skills.

Course outcomes:

After completing this course you should be able to:

- CO1. Describe how the resources and services available in your community enhance physical and cultural development to provide employability & skills.
- CO2. Apply the knowledge of environmental factors that affect community development for skill development.
- CO3. Learn about concept and scope of extension in national development for skill development.
- CO4. Understand the principles and process of program design and management to provide employability & skills.
- CO5. Comprehend about the concept of extension teaching process and innovation decision process for skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)**(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	1	1	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	1	2	3	1	1	1	1	1	1	1	1	2
CO5	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)**(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)**

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	1

Suggested Readings:

1. Roy, G. L. (1991): Extension Communication Management, Calcutta, Naya Prakash.
2. Jain, R. (1993): Mass Media and Rural Development. Vol II, New Delhi, Manak Publications Pvt. Ltd.
3. Thakur, B. S. and Agarwala, C. (1989): Media utilization for the Development of Women and Children, New Delhi, Concept Publishing Co.
4. Rhonda Phillips and Robert H. Pittman, AN INTRODUCTION TO COMMUNITY DEVELOPMENT, Taylor & Francis e-Library, 2008., ISBN 0-203-88693-3 Master e-book ISBN,
5. Teaching community development to social work students: A critical reflection, April 2009, Community Development Journal 44(2), DOI: [10.1093/cdj/bsn001](https://doi.org/10.1093/cdj/bsn001)
6. Community Development Challenge Report" (PDF). Produced by Community Development Foundation for Communities and Local Government. Archived from the original (PDF) on 2018-01-27. Retrieved 2009-02-13.
7. Lefevre, Pierre; Kolsteren, Patrick; De Wael, Marie-Paule; Byekwaso, Francis; Beghin, Ivan (December 2000). "Comprehensive Participatory Planning and Evaluation" (PDF). Antwerp, Belgium: IFAD. Archived from the original (PDF) on 2008-12-06. Retrieved 2008-10-21.
8. "International Association for Community Development". Retrieved 7 July 2014.

Website Sources:

- <https://community-wealth.org/>;
- <https://www.echocommunity.org/en/resources/> ;
- <https://iopscience.iop.org/>
- [https://www.nal.usda.gov/ric/about-ric](https://www.nal.usda.gov/ric/about-ric;);
- pdfdrive.com

IFTM University, Moradabad
Course Code: BHSC-503
FAMILY HOUSING

Course objective

To acquaint the students with various building features, materials, latest building techniques, vastu sharstra, acoustics, rain water harvesting and landscape planning for better skilling of entrepreneurship.

UNIT I

(6 Sessions)

Factors influencing choice of family housing: Family Size – Size of Family, Family Structure, Family activities, Stage in Family Life Cycle, Income of family ,Availability of Housing , Housing values & Standard, Selection of site, Selection of House site: Types of soil, locality Orientation and Public Convenience to provide employability & skills.

UNIT II

(8 Sessions)

Residential Planning: Principles underlying the planning of House – Aspects, Prospects, Privacy, Grouping, Roominess, Flexibility, Sanitation, Circulation. House plan for different income group for better skilling of entrepreneurship.

UNIT III

(8 Sessions)

Construction & Building Material. Construction features of a house – Foundation walls, doors, windows. Floor & floor covering roof, Staircases. Building Materials – Bricks, Stones Cement, Lime, Plastics, Glass, Metals, Woods for better skilling of entrepreneurship.

UNIT IV

(8 Sessions)

Advantages of renting a house.Disadvantages of renting a house .Advantages of home ownership. Disadvantages of home ownership for skill development.

Course Outcomes:

After completing this course you should be able to:

- CO1. Prepare house plan for better skilling of entrepreneurship.
- CO2. Explain about construction and building material for better skilling of entrepreneurship.
- CO3. Understand about government housing scheme for skill development.
- CO4. Explain about family for skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	2	3	1	1	1	3	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1

Suggested Readings:

1. Family Resource Management and Health Science by Randhawa, Rajwinder K, Pardeep Publication
2. Modern Ideal Homes for India by Despande, R.S .United book corporation
3. The house its plan & use by Agan Tessie M.S.Gulab Primlani
4. Ambadker SN. 2000. Rural Housing: Agro-socio-economic Impact. Special Indian Ed. Agrobios.
5. Lal AK. 1999. Handbook of Low Cost Housing, New Age International.
6. Mahadeva M. 2002. Housing in India: The Situation, Development and Challenges. Orient Longman Publ.
7. Morris EW. 1979. Housing Family and Society. John Wiley & Sons.
8. RajaRao YN & Subrahmanyam Y. 2002. Planning and Designing of Residential Buildings. Standard Publ.

Website Sources:

- <https://www.tandfonline.com/doi/abs/10.1080/08882746.2001.11430459?j>
- <https://www.scoilnet.ie/uploads/resources/31413/31149.pdf>
- <https://cte.sfasu.edu/wp-content/uploads/2014/01/Presentation-Notes-for-Factors-that-Affect-Housing-Choices.pdf> ; <https://www.journals.elsevier.com/construction-and-building-materials>
- [https://libguides.princeton.edu/c.php?g=84763&p=543358:](https://libguides.princeton.edu/c.php?g=84763&p=543358)
- pdfdrive.com

IFTM University, Moradabad
Course Code: BHSC-504
ADVANCED CLOTHING CONSTRUCTION

Course Objective

To course aims to deliver a preliminary understanding of the fabric components and enhance the learner's awareness of various commercially available fabrics along with an understanding of their properties and end uses for better skilling of entrepreneurship.

UNIT I **(10 Sessions)**

- Drafting, and making paper patterns for different garments
- Placing and cutting patterns in relation to fabric to provide employability & skills.

UNIT II **(8 Sessions)**

Renovation & removal of defects in garments. Fitting Problems to provide employability & skills.

UNIT III **(8 Sessions)**

- Clothing and its importance Principles of good design.
- Biological, psychological and sociological aspects of clothing. Influence of need and environment on clothing behavior to provide employability & skills

UNIT IV **(8 Sessions)**

Traditional Textiles of India Sarees: (Chanderi, Paithani, Dacca, Patola, Bandhani, Baluchari), carpets, shawls, brocades and painted fabrics (Madhubani and Kalamkari) to provide employability & skills

UNIT V **(8 Sessions)**

Fashion – Fashion Cycle, role of Fashion Designers, current Fashion trends for better skilling of entrepreneurship.

Course Outcomes:

After completing this course you should be able to:

CO1. Understand the components of a textile fabric to provide employability & skills.

CO2. Identify the various commercially available fabrics to provide employability & skills

CO3. Appropriately select fabrics based on their properties, cost and recommended end uses to provide employability & skills.

CO4. Explain about the importance and principles clothing to provide employability & skills.

CO5. Differentiate between Traditional Textiles of India to provide employability & skills.

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	1	1	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	1	2	3	1	1	1	1	1	1	3	1	1
CO4	2	3	1	1	1	2	1	1	1	1	1	2
CO5	2	3	1	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	3	1

Suggested Readings:

1. Elements of fashion and apparel design by G.J. Sumanthi, New Age international limited, New Delhi
2. Traditional embroideries of India by Shailaja D. Naik,, A. P.H Publishing Corporation.
3. Textiles Fiber to Fabric by Bernard P. Corbman, McGraw-Hill International Editions
4. Corbman P. B. (1989) Textiles- Fiber to Fabric, 6th edition, Mc Graw Hill, New York.
5. Hollen N., Saddler J., Langford A.L., Kadolph S.J. (1988) Textiles, 6th Edition, Macmillan publishing Company New York, USA
6. Joseph, M.L. (1988) Essentials of Textiles, 6th Edition, Florida: Holt, Rinehart and Winston Inc.
7. Pizzoto's J.J. Fabric Science, 11th Edition, New York: Fairchild Publication.
8. D. Rastogi (Ed.) and S. Chopra (Ed.) (2017) Textile Science, India: Orient Black Swan.
9. Sekhri S. (2011) Textbook of Fabric Science: Fundamentals to Finishing, Delhi:PHI Learning.
10. Tholia A. (2013) Understanding Fabrics- A practical Approach, 2nd edition, Sarv International.
11. Wingate, Isabel B. (1949)Textile Fabrics and Their Selection, New York: Prentice Hall

Website Sources:

- https://pubsaskdev.blob.core.windows.net/pubsask-prod/40542/40542/Clothing_Textiles_and_Fashion_10_30_2000.pdf;
- http://cbseacademic.nic.in/web_material/Curriculum/Vocational/2015/Traditional_India_Textile_and_Basic_Pattern_Dev_XII/CBSE_Traditional_Indian_Textiles%20XII.pdf:
- pdfdrive.com;
- <https://textilesfindia.in/>

IFTM University, Moradabad
Course Code: BHSC 505
MANAGEMENT OF MEALS

Course objectives

- To understand about the prevalence and extend of malnutrition in India for skill development.
- To know the different ways to assess the nutritional status of the community to provide employability & skills.
- To equip with the knowledge of planning and conduction nutrition education programmes to provide employability & skills.

UNIT I

(12 Sessions)

Relationship of nutrition to human health, growth and human welfare. Concept and definition of terms. Recommended dietary allowances for Indians, Normal Nutrition, malnutrition, under nutrition, dietary fiber, water, acid- base balance, electrolyte balance for skill development.

UNIT II

(10 Sessions)

Energy value of foods and energy requirement, Basal metabolism, factors affecting basal metabolic rate, calorogenic effect of food, specific dynamic action of food to provide employability & skills

UNIT III

(6 Sessions)

- Basic principles of meal planning and its importance.
- Planning menu for individual and family
- Factors affecting meal planning, food groups, their exchange and distribution for skill development.

UNIT IV

(6 Sessions)

Nutrition for specific age groups:

- Nutrition during infancy: a) Growth and Development during infancy b) Nutritional requirements c) Types of milk fed to infants and differences between human and animal milk d) Advantages of Breast Feeding e) Bottle feeding f) Weaning and Supplementary foods
- Nutrition during: 1. Preschoolers. 2. School children
- Adolescence: a) Growth and development b) Nutritional requirements and establishment of good food habits c) Balanced diets.
- Geriatric nutrition (age over 60 years): a) Changes occurring during Ageing. b) Nutritional needs and dietary modifications for skill development.

UNIT V

(6 Sessions)

- Malnutrition Definition and Types of malnutrition. Causes of malnutrition, prevalence of Malnutrition in India. Effects of malnutrition on general health, physical, mental and national development for skill development.
- Meaning, importance, methods and evaluation of Nutrition Education, problems involved in organizing Nutrition Education Programme for the community and how to solve them.

Course Outcomes:

After completing this course you should be able to:

- CO1. Understand nutrition considerations during special conditions for children, adults, old age people and specially for pregnant and lactating mother for skill development.
- CO2. Modify the normal diet for therapeutic purposes to provide employability & skills
- CO3. Understand the etiology, clinical features and dietary management in some common disorders / diseases to provide employability & skills
- CO4. Understand significance of dietary counselin for skill development.
- CO5. Be aware of the various aspects of nutrition education and promotion for skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2
CO5	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	1

Suggested Readings:

1. Nutrition in India – Patvardhan V.N.
2. Principles of Nutrition Wilson E.D/ Father, K.H. Figure M.E Vittar H.S.
3. Nutrition in Health and disease cooprel Barker E. Mitchell, h Ry Moergen,
4. H Searman H.C. Devadas,P.R.Nutrition in TamilNadu,Sangham Publishers,1972.
5. Devadas,P.R and Radhakumari A, The School Lunch Programme, Ministry of Education. 46
6. Major,J Human Nutrition,Spring Field 1972.
7. FAO,Manual on Food and Nutrition Policy, 1970.
8. Avinashilingam P.S,Nutritional feeding in the Fourth Plan,1970.
9. National Symposium of Agricultural Research Development sinceIndependence.Indian Council of Agricultural Research,New Delhi, 1974.
10. Mitchell,R.Crop Growth and Culture. The State University Press.1972
11. Food and Agriculture Organisation of the United Nations,Agriculture and industrialization,Basic study No.7,1967

Website Sources:

- <https://food.unl.edu/documents/NEP%20LHL%20Food%20Resource%20Managemen%20Web.pdf>
- <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2015WR017053>
- <https://www.futurelearn.com/info/courses/food-systems-southeast-asia/0/steps/83755>
- <https://www.hhs.gov/fitness/resource-center/nutrition-resources/index.html>

IFTM University
Course Code: BHSC-506
THE CHILD WITH SPECIAL NEED

Course objective

- To help students make satisfactory social and emotional adjustments to problems imposed. by their disabilities for skill development.
- To help students gain securities through improved function and increased ability to meet the physical demands of daily living for skill development.

UNIT I

(8 Sessions)

Definition of special need child and terminologies related to special need child, relationship of delayed development and disability. Need for intervention, education and rehabilitation, Rights of disabled child for skill development.

UNIT II

(6 Sessions)

The Child with Mental retardation -Definition of Intelligence, adaptive behavior and mental retardation. Current classification and terms: mild, moderate, severe and profound retardation. Genetic and environmental causes; prevention.Characteristics of children with mental retardation in different areas of development for skill development.

UNIT III

(7 Sessions)

The Child with Sensory deficit.Auditory impairment -Definitions-deaf and hard of hearing children, Classification- mild, moderate, severe and profound loss. Genetic, prenatal and perinatal causes of deafness. Approaches to measurement-simple and clinical methods.Cognitive, language, social and emotional development of children with hearing loss.Communication in children with hearing loss.Prevention, early treatment and stimulation for skill development.

UNIT IV

(8 Sessions)

Visual Impairment - Definitions of blindness and partial sight. Genetic and Environmental causes – with special reference to nutrition, Prevention and treatment of impairment. Motor, language and socio- emotional development.Sensitivity of other senses for skill development.

UNIT V

(8 Sessions)

The Child with Cerebral Palsy and Orthopedic Disability - Definitions, classification and prevalence.Causes and associated conditions. Prevention and treatment approaches. Role of family and community. Stress in family and support mechanisms. Integration of children for skill development.

Course outcomes:

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

- CO1. Understand different [concepts](#) of developmental challenges in children for skill development.
- CO2. Know the need and importance of [special education](#) for children with developmental challenges for skill development.
- CO3. Describe the symptoms of major physical disabilities for skill development.
- CO4. Explain ways to provide appropriate care for children with various physical disabilities for skill development.
- CO5. Identify and describe symptoms that signal possible problems associated with various physical impairments and share these observations with parents for skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2
CO5	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1

Suggested Readings:

1. Guilford, R. (1971) “Special Educational Needs”, Routledge and Kegan Press, London.
2. Sharma, N. (Ed)(2010). The Social Ecology of Disability-Technical Series -3 Lady Irwin College. Delhi: Academic Excellence
3. Mangal, S. K. (2007). Exceptional children: An introduction to special education. New Delhi: Prentice Hall of India
4. Cruschank, W.M. (1975). Psychology of Exceptional Children and Youth. Englewood Cliffs N.J.: Prentice Hall
5. Deno, E. (1973). Instructional Alternatives for Exceptional Children. Reston V A E.F.
6. Evans, R.C. & MC Laughlin, P.3. (1993). Recent Advances in Special Education and Rehabilitation. Boston :Andover Medical Publishers
7. Evans, P&Verma, V. (Eds) (1990) Special Education. Past Present and Future. The Falmer Press.
8. Guilford, P. (1971). Special Education Needs. Routledge Kagan Paul
9. Hollahan, D and Kauffman, M. (1978). Exceptional Children: An Introduction to Special Education. Ni. Englewood Cliffs: Prentice Hall.
10. Panda, K.C. (1997). Education of Exceptional Children, New Delhi, Vikas Publishing House.
11. Pandey, R.S. and Advani, L. (1995). Perspectives in Disability and Rehabilitation. New Delhi: Vikas Publishing House.
12. Stephens, T.M. Etal (1983). Teaching Mainstream Students. New York: John Wiley.
13. WHO (1976). International Classification of Procedures in Medicine. Geneva Vol. 1 & 2.
14. Dessent, T. (1987). Making the Ordinary School Special. The Falmer Press, London.
15. Friel, J. (1997). Children with special needs, Jessica Kingsley Publication, London
16. Brelje, W. (1999). Global Perspective on Education of the Deaf. Selected countries, Butte Publication Inc. – USA.
17. Baquer, A. and Sharma, A. (1997). Disability: Challenges Vs. Responses. CAN, New Delhi

Website Sources:

- <https://www.theonlinemom.com/web-based-resources-for-special-needs-kids/>;
- <https://www.specialeducationguide.com/pre-k-12/tools-and-research/support-and-resources-for-parents-and-teachers/> ;
- <https://www.mentalhelp.net/intellectual-disabilities/signs-and-symptoms/>;
- Pdfdrive.com
- <https://www.cerebralpalsy.org/>; <https://kidshealth.org/en/parents/central-auditory.html>;
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1906928/>

IFTM University, Moradabad
Course Code: BHSC-507B
Research Methods in Human Development

Objective: To develop the skills on statistical methods and to understand data analysis for writing up a dissertation/ thesis/research article for skill development.

UNIT-I (6 Sessions)

Research – Meaning, objectives and importance for skill development
Nature and Areas of research in Home-Science with special referenceto Human Development
Types of Research for skill development

- a) Basic, Applied and Action research
- b) Historical research
- c) Descriptive Research Methods –
Survey, case study, corelational study, causal comparative.
- d) Analytic studies – Pre-experimental, experimental and quasiexperimental research

UNIT-II (6 Sessions)

Qualitative research methods for skill development for skill development
Theory and design of qualitative research
Definition and types of qualitative methods:

- a) Informal group discussion
- b) Interview : Key informant, indepth study
- c) Observation
- d) Social mapping
- e) Participatory Rapid Assessment
- f) Participatory Learning Assessment
- g) Case study

UNIT-III (6 Sessions)

Variables & their types
Objectives and assumptions for skill development
Hypothesis – meaning, importance and ways of stating hypothesis
Sampling – meaning, importance, sampling techniques, sources of bias and methods of reducing bias
Basic principles of Research Design

- a) Purpose of Research design
- b) Design for different types of research

UNIT-IV (6 Sessions)

Sources of primary and secondary data collection for skill development
Psychometrics : Meaning, characteristics of a good test, determinationof reliability, validity, discrimination power
Data Analysis: classification, coding and analysis, interpretation of data
Research Report for skill development:-

- a) General structure of reporting
- b) Formal style of writing
 - Acknowledgements
 - Tables & Figures
 - Footnotes, Quotations
 - Appendices, Bibliography
 -

Course outcomes:

On successful completion of the course students will be able to for skill development:

CO1. Explain the significance of research methodology in human development for skill development

CO2. Distinguish between different types of tools and methods of research for skill development

CO3. Analyze a research problem for skill development

CO4. Design research proposals and prepare research report for skill development

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	1	2	1	3	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	2	1	1	1
CO3	1	2	1	1	1	3	2	3	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1

References :

1. Agarwal, J.C (1966). Educational Research. An Introduction. New Delhi : Arya Book Depot.
2. Banclarkar, P.L. and Wilkinson, T.S. (2000). Methodology and Techniques of Social Research. Mumbai: Himalaya Publishing House.
3. Best, J.W. (1977). Research in Education. New Delhi: Prentice Hall of India.
4. Bhatnagar, G.L. (1990). Research Methods and measurement in Behavioural and Social Sciences, New Delhi Agri: Coll Publishing Academy.
5. Chandra, S.S. & Sharma, R.K. (2004). Research in Education. New Delhi : Atlantis Publishers.
6. Kaul, Lokesh (2006). Research in Education and Psychology. New Delhi: Vikas Publishers.
7. Nachman's, D. & Chava, N. (2008). Research methods in Social Sciences (2nd Ed.). New Delhi: St Martin's Press.

E-Resources:

- Research methodology, methods and techniques, CR Kothari
<http://www.modares.ac.ir/uploads/Agr.Oth.Lib.17.pdf>
- Research hypothesis – Slide share

<https://www.slideshare.net/drjayeshpatidar/research-hypothesis-20719840>

IFTM University, Moradabad
Course Code: BHSC-508B
Techniques of Studying Human Development
and Scientific Writing

Objective: To develop the skills on statistical methods and to understand data analysis for writing up a dissertation/ thesis/research article for skill development.

UNIT-I **(6 Sessions)**

Human Development study: Time span approach – longitudinal, cross sectional and sequential approach, ethnographical approach, life span approach – Birth to old age for skill development
Methods of Studying Growth and Body Size– Significance of Anthropometric measurements – Height, Weight, Mid upper arm circumference, Skin fold thickness, Head and Chest circumference, Waist and Hip circumference
Psychological Test –ways of constructing a good psychological test and steps for standardization, limitations and ethical considerations in testing for skill development for skill development

UNIT-II **(6 Sessions)**

Personality Assessment – Purpose and developmental procedures, Projective Techniques – importance and limitations for skill development
Planning and execution of symposium, seminars, workshops and panel discussion
Different tools to measure human attributes: importance, construction and administration, advantages and disadvantages - Observation schedule, Interview, Questionnaire, Case history for skill development

UNIT-III **(6 Sessions)**

Scaling Techniques and construction: (The summated Rating, The Likert- type scale, The Thurstone Equal-Appearing Interval Scale, Guttman Scaling, The Semantic Differential Technique, The Bogardus Social Distance Scale)
Assessment of Attitudes – Types and uses (Batteries and specific subject test, attitudes of various persons towards various social issues) for skill development for skill development
Measurement of Social Development – Sociometric method and sociogram
Emotional intelligence and competencies – Uses and limitations

UNIT-IV **(6 Sessions)**

Scientific writing as a means of communication for skill development:
Important points in scientific writing (brevity and precision in writing, drafting and redrafting based on critical evaluation)
Writing for: Articles in journals, Research notes and reports, Review articles, Monographs, Dissertation, Bibliographies, Book chapter and articles, Book review
Outlining a research proposal (Introduction, review of literature, significance of study, operational definition of terms and concepts, delimitations of study, basic assumptions/hypothesis, sampling, tool and procedure of collecting data, analysis technique, references)

Course outcomes:

On successful completion of the course students will be able to for skill development:

CO1. Appraise various methods and techniques of studying and researching in human development for skill development

CO2. Prepare, implement and evaluate tools appropriate in context of the Human Development discipline for skill development

CO3. Write correct in text citations and complete references in approved style(s) for skill development

CO4. Communicate effectively with a range of audiences

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	1	1	1	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	2	1	1	1	1	3	1	1	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1

References :

1. Aylward, G. (1994). Practioner's Guide to Development and Psychological Testing. New York: Plenum Press.
2. Bamji, M.S. Rao, P.N. & Reddy, V. (Ed.). (1996).Textbook of Human Nutrition. New Delhi: Oxford and IBH Publishing CO. Pvt. Ltd.
3. Berk, L.E. (2006). Child Development. New Delhi: Prentice Hall.
4. Glatthorn, A.A. & Joyner, R.L. (2005). Writing the Winning Thesis or Dissertation: A Step by Step Guide (2nd ed.). California: CorwinPress.
5. Hayes, N. (Ed.) (1997). Doing Qualitative Analysis in Psychology.Hove: Psychology Press.
6. Loke, I.F., Spirduso, W.W. & Silverman, S.J. (2007). Proposals that Work: A Guide for Planning Dissertation & Grant Proposals (5th ed.). New Delhi: Sage Publication.
7. Santrock, J.W. (1998). Child Development (8th ed). New York: Mc.Graw Hill.
8. Saraswathi, T.S. & Kaur, B. (1993). Human Development and Family Studies in India. New Delhi: Sage Publications.

E-Resources:

- <https://drive.google.com/open?id=0Bwk5FIsI0ctxb2iRelA1Mk5za>
Social Research Methods 5MB <https://drive.google.com/open?id=0Bwk5FIsI0ctxQk5yOWpXdU1>

IFTM University, Moradabad
Course Code: BHSC-551
NUTRITION THERAPY

Course Objectives

- To familiarize the students with newer concepts in dietary management of various disorders and diseases to provide employability & skills.
- Understand the role of nutrition for good health for skill development.
- To obtain knowledge of different Therapeutic diets and their preparation to provide employability & skills.
- To develop capacity and attitudes for taking up dietetics as a profession for skill development.

List of Practical -

- A. Planning and preparation of soft and liquid diet for skill development.
- B. Diet in Diarrhea and constipation to provide employability & skills.
- C. Diet in Kwashiorkor, Marasmus to provide employability & skills.
- D. Diet in peptic ulcers.
- E. Diet for underweight and obese.
- F. Diet in Hypertension.
- G. Diet in fevers.
- H. Diet in Diabetes

Course outcomes:

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

CO1. To acquire basic knowledge of nutrient [requirements](#), recommended dietary allowances, and dietary modification under different physiological conditions to provide employability & skills.

CO2. To acquire basic knowledge of food groups, food exchange system and their nutritional significance, and application of knowledge acquired for healthy eating to provide employability & skills.

CO3. To develop practical skills in planning and [management](#) of diets for the different age groups under normal/physiological conditions keeping in mind the [dietary guidelines](#) to provide employability & skills.

CO4. To gain knowledge of different types of therapeutic diet for skill development.

CO5. To know the [etiology](#), incidence, nature, clinical [symptoms](#), [diagnosis](#), and medical and [dietary management](#) of disease for skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	1	1	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	2	3	1	1	1	2	1	1	1	1	1	2
CO5	2	3	1	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	2	1

Suggested Readings:

1. Clinical Nutrition and Dietetics- Autia F.P .
2. Nutrition in Health and disease cooprel Barker E. Mitchell, h Ry Moergen, H Searman H.C.
3. Nutritive value of Indian Foods C Gopalan.
4. Robinson, Lawler, Chenoweth & Garwick, 1987. Normal & Therapeutic Nutrition. 17th Ed. Macmillan Publishing Co.
5. Shills ME & Young VR. Modern Nutrition in Health & Disease 7th Ed. Lea & Febiger.
6. Stanfield PS, Hui YH & American Dietetics Association 1992. Nutrition & Diet Therapy. 2nd Ed. Jones & Bartlett Publ.
7. Sumati R. Mudambi and M.V. Rajagopal, Fundamentals of Foods, Nutrition and Diet Therapy, 5th Edition NEW AGE INTERNATIONAL (P) LIMITED, PUBLISHERS 4835/24, Ansari Road, Daryaganj, New Delhi - 110002 Visit us at www.newagepublishers.com, ISBN (13) : 978-81-224-2972-5 , 2007.
8. Ruth A. Roth, MS, RD., Nutrition & Diet Therapy, 10th Edition , ISBN-13: 978-14354-8629-4 ISBN-10: 1-4354-8629-3, 5 Maxwell Drive Clifton Park, NY 12065-2919 USA
9. Textbook of Clinical Nutrition and Functional Medicine, Vol. 2: Protocols for Common Inflammatory Disorders March 2016, Edition: 4th Edition, Publisher: International College of Human Nutrition and Functional Medicine ICHNFM.ORG, ISBN: 978-0990620440.

Website Sources:

- <https://www.dietitiansathome.com/medical-nutrition-therapy-mnt>;
- <https://www.pdfdrive.com/> www.eatright.org;
- <http://www.choosemyplate.gov>;
- <http://www.fda.gov/food/default.htm>;
- <http://www.nutrition.gov>;
- www.consumerlab.com;
- www.publichealth.org;
- <https://www.nutritionist-resource.org.uk/> ;

IFTM University, Moradabad
Course Code: BHSC-552
MANAGEMENT OF MEALS

Course objectives

- To understand about the prevalence and extend of malnutrition in India for skill development
- To know the different ways to assess the nutritional status of the community for skill development
- To equip with the knowledge of planning and conduction nutrition education programmes for skill development.

List of Practical:

- A) Categorization of food as rich, moderate and poor sources of energy, protein, fat carbohydrates, vitamins and minerals for skill development.
- B) Demonstration, understanding of principal and working of a bomb calorimeter for skill development.
- C) Planning diets for different age groups, income groups and activity levels for skill development.
- D) Planning diet for pregnancy and lactation period for skill development.

Course outcomes:

After completing this course you should be able to:

- CO1. Understand nutrition considerations during special conditions for children, adults, old age people and specially for pregnant and lactating mother for skill development.
- CO2. Modify the normal diet for therapeutic purposes for skill development.
- CO3. Understand the etiology, clinical features and dietary management in some common disorders / diseases for skill development.
- CO4. Understand significance of dietary counseling for skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	2	3	1	1	1	3	1	1	1	2	1	1
CO3	2	3	1	1	1	3	1	1	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1

Suggested Readings:

1. Nutrition in India – Patvardhan V.N.
2. Nutrition in Health and disease cooprel Barker E. Mitchell, h Ry Moergen,
3. Major,J Human Nutrition, Spring Field 1972.
4. FAO, Manual on Food and Nutrition Policy, 1970.
5. Avinashilingam P.S, Nutritional feeding in the Fourth Plan, 1970.
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9. Ruth A. Roth, MS, RD., Nutrition & Diet Therapy, 10th Edition , ISBN-13: 978-14354-8629-4 ISBN-10: 1-4354-8629-3, 5 Maxwell Drive Clifton Park, NY 12065-2919 USA
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- pdfdrive.com;

IFTM University, Moradabad
Course Code: BHSC-601
FOOD PRESERVATION & PROTECTION

Course objective

The goal of this course is to provide students with a fundamental understanding of food preservation and food packaging techniques and to ensure students are technically ready for the food industry through a practical, problem-solving approach to provide employability & skills.

UNIT I **(8 Sessions)**

Food Spoilage- Causes , Perishable, semi perishable and non-perishable foods. Factors affecting the growth of micro-organisms in the food. Intrinsic and extrinsic parameters for skill development.

UNIT II **(7 Sessions)**

Food Preservation. Importance and principles of food preservation. Methods of food preservation. Use of low temperature (Refrigeration and freezing). Use of high temperature(Pasteurization and sterilization). Use of preservatives. Drying. Radiation to provide employability & skills

UNIT III **(7 Sessions)**

Food Fermentation. Microorganisms as food-SCP (Single cell Protein) C) Food Adulteration and its household methods of detection to provide employability & skills

UNIT IV **(8 Sessions)**

Food Additives – definition and classification. General principles of the use of food additives issued by FAO, WHO. Natural and synthetic preservatives for skill development.

UNIT V **(8 Sessions)**

Food Laws and Standards. Responsible agencies for safe food. Present regulations / orders / standards related to food for skill development.

Course outcomes:

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

- CO1. Apply major food preservation techniques and explain underlying principles to provide employability & skills.
- CO2. Analyze and evaluate novel food processing methods including non-thermal food processing techniques using pressure, light, sound and microwave to provide employability & skills.
- CO3. Outline the purpose and principles of food packaging and examine the operations involved in packaging material manufacture to provide employability & skills.
- CO4. Critique environmental issues, regulations and quality control associated with food packaging for skill development.
- CO5. Identify and evaluate the suitability of processing and packaging techniques for various foods for skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	1	1	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	1	2	3	1	1	1	1	1	1	3	1	1
CO4	2	3	1	1	1	2	1	1	1	1	1	2
CO5	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	3	1

Suggested Readings:

1. Subalakshmi, G and Udipi, S.A. Food processing and preservation. New Age International Publishers, New Delhi, 2001.
2. Srilakshmi, B. Food Science. New Age International Publishers, New Delhi, 2003.
3. Srivastava, R.P.O and Kumar, S. Fruit and vegetable preservation, International Book distribution Company, Lucknow, 1994.
4. Foods Facts and Principles, N. Shakunthala Manay and M. Shadaksharaswamy, 2001.
5. Food Science Third edition, B. Srilakshmi, 2003.
6. Food Science, Fourth edition Norman N. Potter, 2013
7. Nutrition Facts, Karen Frazier, Aug 2015.
8. Modern Food Microbiology, Seventh edition, James M. Jay , Martin J. Loessnerm, David A. Golden, 2005.
9. Food Processing, Carl J. Schaschke, 2011

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- <https://www.britannica.com/topic/food-preservation>; <https://nchfp.uga.edu/>
- <http://hamilton.cce.cornell.edu/home-food-family/food-preservation>;
- <https://byjus.com/biology/food-preservation-methods-food-poisoning/>
- <https://www.highspeedtraining.co.uk/hub/food-preservation-methods/>
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IFTM University, Moradabad
Course Code: BHSC-602
ART PRINCIPLES AND INTERIOR DECORATION

Course objectives

To help students to:

1. Learn aesthetic skills in applying principles of Interior Decoration to provide employability & skills.
2. Apply practical knowledge and skill in treating home decoration and commercial centers to provide employability & skills.
3. Become a good Interior Designer to provide employability & skills.

UNIT I

(8 Sessions)

Introduction to Foundation of Art –Definition and types of design, Elements of design along with Characteristics & classification (line, size, form, structure, space, pattern, shape).Principles of design & their characteristics and types (Balance, rhythm, harmony, proportion, emphasis, opposition) to provide employability & skills.

UNIT II

(7 Sessions)

Study of Colours- classification and dimension. Colour scheme and their effect: Monochromatic color scheme, Analogous color scheme, Complementary color scheme, Split-complementary color scheme, Tetradic color scheme, Neutral color scheme, Accented neutral color scheme, Warm and Cool Color Schemes. Impact of colours in interiors and human beings, Psychological impact of various colours in interiors to provide employability & skills

UNIT III

(6 Sessions)

Application of design Indian, regional, traditional & contemporary arts & their use in – Floor decoration and Home decoration.Lighting-types, lighting fixtures, lighting requirement for various activities for skill development.

UNIT IV

(10 Sessions)

Principles of Flower arrangement, Elements of Flower arrangement, Material used in flower arrangement, Types of flower arrangement-Mass arrangement, Line arrangement, Japanese arrangement, Steps in flower arrangement. Use of accessories in interior enrichment to provide employability & skills.

UNIT V

(6 Sessions)

Appreciation of arts; In terms of principles of art and design, In terms of composition and aesthetic appeal. Aesthetic- Its importance in relation to interiors for skill development.

Course outcomes:

By the end of the course the students will be able to:

- CO1. Apply theory, psychology and methodology of color to designs of the interior environment to provide employability & skills.
- CO2. Explain elements of art and [principles of design](#) to provide employability & skills.
- CO3. Application of principles of art and design in rural and urban homes to provide employability & skills.
- CO4. Understand about color - its importance in interior decoration to provide employability & skills.
- CO5. Understand about color - characteristics and application in interior decoration for skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2
CO5	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	1

Suggested Readings:

1. R.S Deshpande, Modern Ideal Homes for India, UNITED Book Corporation Puna.
2. Diamonstein, Interior Design-The New Freedom, New York: Rizzoli International Publications Inc.
3. Art in Everyday Life - Harriet Goldstein Mac Millan Co. New York.
4. Anna Hong Rutt (1973). Home Furnishing, Wiley Eastern private limited, New Delhi.
5. Harriet Goldstein and Veita Goldstein (1954). Art in Everyday Life, Fourth edition, Macmillan Publishing Co., INC.
6. Ruth Morton, Hilda Geuther. and Virginia Guthrie (1970). The Home its Furnishings and Equipment. Webster Division, McGraw-Hill Book Company, New York.
7. P.parimalam, A. Andal and M.R. Premalatha (2008). A text book of Interior Decoration, Satish Serial Publishing House, Delhi
8. Premavathy Seetharaman and Parveen Pannu(2009) Interior Design and Decoration. CBS Publishers and Distributors Pvt Ltd. New Delhi

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3. www.areforum.org/up/Mechanical%20and%20Electrical/8946BST.pdf
4. http://www.cobw.com/GraphicDesign_Color_Theory_and_Color_Wheel.htm
5. <https://algonquincollege.libguides.com/interiordesign/web>
6. https://artclever.com/books/The_Fundamentals_of_Interior_Design.pdf
7. <https://kraftivo.in/interior-design-guide/>

IFTM University, Moradabad

Course Code: BHSC-603

TEXTILE DESIGN

Course objectives:

- To provide the students understanding of the concept of color and its measurement to provide employability & skills.
- To provide the knowledge and understanding of the theories, mechanism and use of various dyes and auxiliaries for dyeing and printing of textile substrates to provide employability & skills.

UNIT I

(8 Sessions)

Elements and principles of design in relation to textiles. History of textile design. Classification of textile design – woven and printed. Methods of getting design of textile and their comparison. Preparation of fabric before dyeing and printing. Industrial level processing – singeing, desizing, scouring, bleaching, kier boiling, mercerizing. Cottage level processing - desizing, bleaching, carbonizing to provide employability & skills.

UNIT II

(10 Sessions)

Dyes – Classification of dyes. Mode of action and application – on yarn and fabric. Styles of dyeing – direct, resist, discharge to provide employability & skills.

UNIT III

(8 Sessions)

Printing – Methods of printing. Hand printing – block, stencil, screen, spray. Machine printing to provide employability & skills.

UNIT IV

(12 Sessions)

Traditional Textiles of India – Chanderi of Madhya-Pradesh, Brocade of Uttar Pradesh (Banaras) and Andhra-Pradesh (Hyderabad) , Patola of Gujrat, Orissa and Andhra-Pradesh, Chamba rumal of Himachal Pradesh, Balucheri of Bengal, Muslin of Dacca, Kosa silk of Chattisgarh to provide employability & skills.

UNIT V

(8 Sessions)

Traditional Embroideries of India – Kashmiri, Phulkari, Chikankari, Kantha, Gujrati, Kasuti to provide employability & skills.

Course outcomes:

By the end of the course the students will be able to:

- CO1. Understand the concept of color and its measurement techniques to provide employability & skills.
- CO2. Describe the process of dyeing of various fibers with different dyes to provide employability & skills.
- CO3. Describe the methods and styles of printing to provide employability & skills.
- CO4. Explain about different Embroideries to provide employability & skills.
- CO5. Understand about elements and principles of design in relation to textiles to provide employability & skills.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	3	1	1	1	2	3	1	1	1
CO2	1	2	3	1	1	1	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2
CO5	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	1

Suggested Readings:

1. G.J. Sumanthi, Elements of fashion and apparel design, New Age international limited, New Delhi
2. Shailaja D. Naik, Traditional embroideries of India, A. P.H Publishing Corporation.
3. Bernard P. Corbman Textiles Fiber to Fabric, McGraw-Hill International Editions Suggested Readings:
4. Aspland J. R., (1997) Textile Dyeing and Colouration, NC: AATCC.
5. Clarke, W. (1977) An Introduction to Textile Printing, London: Butterworth and Co. Ltd.
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9. Shore, John (Ed) (1990) Colorants and Auxiliaries: Organic Chemistry and Application Properties, Vol. 1 & 2, West Yorkshire: Society of Dyers and Colorists, England.
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- <https://www.thesprucecrafts.com/stitches-every-embroiderer-should-know-4122123>
- <https://www.craftsvilla.com/blog/famous-indian-embroidery-styles/>
- Pdfdrive.com

IFTM University, Moradabad
Course Code: BHSC-604
EXTENSION TRAINING & MANAGEMENT

Course objectives

- To understand the concept of community development for skill development.
- To understand the need for community participation for skill development.
- To develop an understanding regarding importance of training to provide employability & skills.
- To understand the different mass media effective for rural campaigns for skill development.

UNIT I (10 Sessions)

Extension training concept. Characteristics, principles and psychological concepts used in training. Characteristics of adult learner. Factors affecting learner for skill development.

UNIT II (8 Sessions)

A) Extension training methods - individual, group, mass contact. B) Participation techniques (PRA) for training. C) Components of training-objectives, methods, instructional materials, monitoring & evaluation for skill development.

UNIT III (8 Sessions)

A) Training management. B) Meaning. C) Structure. D) System of management to provide employability & skills.

UNIT IV (10 Sessions)

A) Functional aspects of Home Science training management .
 B) Planning. C) Steps. D) Types. E) Decision making process to provide employability & skills.

UNIT V (8 Sessions)

Organizing human & non human resource of training. Behavioral aspects of management - motivation, leadership, strategy, creativity. Role of government and non-government agencies in regularizing training. Obstacles in management of training. Role of maintaining and evaluation in training for skill development.

Course outcomes:

By the end of the course the students will be able to:

- CO1. Comprehend the relationship between [home science education](#) with extension system for skill development.
 CO2. Familiarize with the structural of rural [society](#) for skill development.
 CO3. Understand functional concepts of rural [society](#) for skill development.
 CO4. Acquire Knowledge regarding various existing extension for skill development.
 CO5. Acquire Knowledge regarding rural development programmes for skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	2	3	1	1	1	3	1	1	1	3	1	1
CO4	2	3	1	1	1	2	1	1	1	1	1	2
CO5	2	3	1	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	1

Suggested readings:

1. Singh, A.K., 2000; Agricultural Extension, Agrobios, Jodhpur, India.
2. Kumar, B. and Hansra, 2000; Extension Education for Human Resource Development, Concept Publishers, New Delhi
3. Agriculture extension in community development- Dr. J.G.Garg.
4. Introductory rural sociology –Dr. J.B. Chitamber
5. Social change in India – Kuppuswamy.
6. Adivi Reddy.A, Extension [Education](#), Seventh Edition, Sri Lakshmi press, Bapatla
7. Dahama O.P. and Bhatnagar O.P, [Education](#) and Communication Development, Second Edition, Oxford and IBH Publishing Pvt. Ltd, Calcutta.
8. Rathore O.S, Dhakar S.D, Chauhan. M.S and ojha .S.N, Hand Book of Extension [Education](#), First edition, Agrotech Publishing Academy, Udaipur.
9. Ray, G.L., 1996, Extension Communication and Management, Naya Prakash Publications, Calcutta.
10. Dubey, V.K. and Indira Bishnoi, 2008, Extension [Education](#) and communication, New Age International Publishers.

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- <http://www.fao.org/3/ca5007en/ca5007en.pdf>
- **Pdfdrive.com**
- <http://eagri.org/eagri50/AEXT392/lec03.html>

IFTM University, Moradabad
Course Code: BHSC-605
FURNITURE, FURNISHINGS AND FITTINGS

Course objectives

- To enable the students to learn about the types and importance of furniture for skill development.
- To know about the selection, care and arrangement of furniture for skill development.
- To enable the students to learn about types of windows and window treatments for skill development.
- To understand the role of fabric in interior decoration to provide employability & skills.
- Develop skills in designing and construction of curtains to provide employability & skills.

UNIT I

(8 Sessions)

General Principles for furniture selection: cost, construction, durability, care of the furniture etc. Furniture design based on anthropometric dimensions. Styles of furniture – traditional, contemporary and modern.
Upholstered furniture materials, techniques and designs for skill development.

UNIT II

(8 Sessions)

Cane furniture, Glass furniture, Plastic furniture and PVC furniture, Wrought iron furniture, Wooden furniture to provide employability & skills.

UNIT III

(6 Sessions)

Furnishings Introduction to furnishings, Upholstery, draping of curtain fabrics, Floor coverings – tiles, stone, carpets and rugs, laminated, hard wood, engineering wood, Wall treatments, Ceiling treatments to provide employability & skills.

UNIT IV

(6 Sessions)

Fittings Door and window fittings, parts and types of doors and windows, functional and decorative treatments Sanitary fixtures & fittings, Light fixtures and fittings to provide employability & skills.

UNIT V

(8 Sessions)

Estimating and Budgeting Need for an estimate, Types of estimate and Budgeting (preliminary, detailed, item rate), Specification, Tenders to provide employability & skills.

Course outcomes:

At the end of the course, the student will be able to:

- CO1. Understand the principles related to furniture design for skill development.
- CO2. Gain an understanding on the basic principles of designing furniture for a house and also the arrangement to provide employability & skills.
- CO3. Get familiarized with the different styles of furniture used to provide employability & skills.
- CO4. Get familiarized with the materials used in furniture to provide employability & skills.
- CO5. Acquire practical knowledge in designing space saving furniture's for different family needs for skill development.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	2	3	1	1	1	3	1	1	1	2	1	1
CO3	1	2	2	3	1	1	1	1	1	3	1	1
CO4	1	1	2	3	1	1	1	1	1	1	1	2
CO5	1	1	2	3	1	1	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	3	1

Suggested readings:

1. Linley David; Classical Furniture; Pavillion Books Limited, London
2. Germer Jerry; Creating Beautiful Bathrooms. RA Creative House Owner
3. Deshpande; R.S. Modern Ideal Homes, Poona. UNITed Book Corporation.
4. Philips B, (2000), Hamlyn book of decorating, octopus publishing Ltd, London.
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6. Luke. H., (1996), soft furnishings, New Holland publishers Ltd, Singapore.
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8. Wilhide, E and Copestick, I. (2000) contemporary decorating, conron octopus Ltd., London.
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- <https://www.accountingtools.com/articles/2017/5/10/furniture-and-fixtures>
- Pdfdrive.com
- <https://www.slideshare.net/96vidya/furniturefixtures>
- <https://www.slideshare.net/pranjaljoshi2/fixtures-furniture-and-fitting-in-hotel-housekeeping>

IFTM University, Moradabad
Course Code: BHSC-606
ENTREPRENEURSHIP MANAGEMENT

Course objectives

To enable the students to:

- Understand the nature of entrepreneurial activities to provide employability & skills.
- Seek self-employment ventures to provide employability & skills.
- To impart information on the various sources of finance and also on the process of setting up small enterprise for skill development.
- Acquire skills in planning project proposals for better skilling of entrepreneurship.

UNIT I

(10 Sessions)

Entrepreneurship - Definitions, need, scope and characteristics of entrepreneurship, entrepreneurship development and employment promotion, Identification of opportunities to provide employability & skills.

UNIT II

(6 Sessions)

Business Environment for the entrepreneur - Government of India policy towards promotion of entrepreneurship. National and state level Institutions providing support to Small Scale UNITS in terms of finance, raw material & machinery for better skilling of entrepreneurship

UNIT III

(10 Sessions)

Major steps involved in setting up a small scale project, identification, project formulation, resource mobilization Need, scope and approaches for project formulation. Market survey techniques, criteria and of product selection and development for better skilling of entrepreneurship.

UNIT IV

(10 Sessions)

Critical path method, Project Evaluation, Review Techniques as planning tools for establishing SSI ,Plant layout and process planning for the product establishing the UNIT for better skilling of entrepreneurship.

UNIT V

(6 Sessions)

Creativity and innovation problem solving, personnel management, performance appraisal, Quality control. Marketing and Marketing Management strategy, Packaging, Advertising, Sales promotion, Licensing and registration .Business Ethics to provide employability & skills.

Course outcomes:

After studying this course, the students would be able

- CO1.To build on personal as well as external resources with a view to successfully launch and subsequently manage their enterprises to provide employability & skills.
- CO2.To assess their strengths and weaknesses as entrepreneurs and identify how to strengthen their skills for better skilling of entrepreneurship.
- CO3.To select appropriate form of business and arrange required start-up capital for better skilling of entrepreneurship.
- CO4. Make sales, cost and cash flow plans for better skilling of entrepreneurship.
- CO5.To know the legal responsibilities and advantages of insuring their business for better skilling of entrepreneurship.

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2
CO5	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	3
CO2	3	2	3
CO3	3	2	3
CO4	3	2	3
CO5	3	2	3

Suggested readings:

1. Rathore B.S., 1999, Entrepreneurship in 21st Century, Wheeler Publishing.
2. Khanka, S.S., Entrepreneurial development, S, Chand & Company Ltd.
3. Singh, N.P., 1985, Emerging Trends in Entrepreneurship Development: Theories & Practices, New Delhi: Intercultural foundation for development management.
4. Akhouri, M.M.P. Entrepreneurship for women in India, New Delhi, NIESBUD, 1990.
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13. Desai, V. (1996). Entrepreneurial Development – Principles, Programmes and Policies (Vol.I), Formulation, Appraisal and Financing (Vol. II) and Programmes and Performance (Vol. III), Bombay, Himalaya Publishing House.

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- <https://www.slideshare.net/basitnazir/entrepreneurship-management-31560291>
- <https://www.slideshare.net/karheng1/business-entrepreneurship-management>
- <https://www.slideshare.net/Simranpreet5/project-formulation-78389404>
- <http://www.fao.org/3/a-au766e.pdf>
- Pdfdrive.com
- <https://www.slideshare.net/zulfiqer732/project-management-tools-and-techniques-pert-project-evaluation-and-review-technique-cpm-critical-path-method>

IFTM University, Moradabad

Course Code: BHSC-607B

Child in the Family

Objectives- Analyze how knowledge and skills related to individual, *child*, and *family* development affect the well-being of individuals, *families*, and society for better skilling.

UNIT-I

(6 Sessions)

Family in social context for skill development

Sociological significance of family

Approaches to the study of family: developmental, social, psychological and educational

Family: structure, functions, roles and relationships

Influence of SES, culture, religion on family for better skilling

Intergenerational conflict within the family

Family as an eco system for better skilling

Intrafamilial influences on the personality development – secure and insecure experiences, crisis in the family; death, divorce, alcoholism, illness, and unemployment

UNIT-II

(6 Sessions)

Role of the child in the family for better skilling -

Child and family interaction, emotional satisfaction

Expansion of family interest

Opportunity and insight into the life process for skill development

UNIT-III

(6 Sessions)

Where and how the family helps the individual member through -

Shared responsibility

Proper use of leisure hours

Family customs

Family rituals

Sacraments

Sound sex education for better skilling

Mental health & hygiene: meaning, definition, characteristics of good mental health, role of parents in maintaining positive mental health

Human Rights:

Classification of human rights- normal, legal, political and civil, social, emotional and cultural environment and development rights

Duties of Indian citizens for skill development

UNIT-IV

(6 Sessions)

Child rights for better skilling for skill development:

Status of Indian children

Violation of child right and gender disparities

Children in difficult circumstances

Child labour, street children, child prostitutes and children of prostitutes

Remedial measures

Adoption and adopted child

Women's Rights:

Status of Indian women

Violation of women rights – violence against women at home, workplace and society

Sexual harassment and rape

Remedial measures

Course outcomes:

On successful completion of the course students will be able to:

CO1. Understand family as component of social cultural milieu and context for better skilling

CO2. Deal the sensitive issues and crisis situations of family for better skilling

CO3. Understand human rights and duties for better skilling

CO4. Play significant and appropriate role in family and social context for better skilling

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1

Reference:

1. Ahuja, R. (2014). Social problems in India. Jaipur: Rawat Publications.
2. Awasthi, P.K. (2014). Children and Family Relationship. Delhi: Ancient Publishing House.
3. Byrne, O. & Dareen, J. (2003). Human Rights: An Introduction. New Delhi: Pearson Education.
4. Carson, D. K., Carson, C. K. and Chowdhary, A. (Eds.) (2007). Indian Family at the Crossroad. Delhi: Gyan Publishing House.
5. D' Souza, C. & Menon, J., Understanding Human Rights (series-4) Bombay: Research and Development centre.
6. Dallos, R. & McLaughlin, E.. (1993). Social Problems and the Family. New Delhi: SAGE Publications Ltd.
7. Desai (1991). Research on Families with problem in India: Issues and implications. (Vol. II) Mumbai: M Book Publisher.
8. Gupta, U.N. (2004). The Human Rights. New Delhi: Atlantic Publishers and Distributors.
9. Lock, S.L. (1992). Sociology of the Family. London: Prentice Hall.

IFTM University, Moradabad
Course Code: BHSC-608B
Adulthood and Ageing

Objectives- The *Adult* Development course is designed to provide students with an overview of the physical, cognitive, emotional, and social development of an adult for better skilling.

UNIT- I (6 Sessions)

Early adulthood (20-35 years) for better skilling for skill development
 Physical, intellectual, social and personality development during early adulthood
 Transition to adulthood (life cycle approach) - security, marriage, marital adjustment and parenthood
 a) Economic and occupational issues and adjustment

UNIT- II (6 Sessions)

Middle adulthood (35-50 years) for better skilling
 Continuity and change, health and disease, menopause in women, adult sexuality
 Intellectual, personality and social development during middle adulthood
 Occupational aspect – work and career development

UNIT- III (6 Sessions)

Late Adulthood and Ageing (50-60 years) for better skilling for skill development
 Continuity and change in personality, the family life cycle
 Psychological and social adjustment for better skilling
 Planning for retirement – consequences and adjustment
 Health and disease

UNIT- IV (6 Sessions)

Old age (60 years and above)
 Theoretical perspective on ageing process for skill development
 Physical aspect of ageing for better skilling
 Change in personality – social, emotional, cognitive abilities and intellectual aspect
 Problems and adjustment during old age
 Creative adjustment in ageing

Course outcomes:

On successful completion of the course students will be able to:

CO1. Understand developmental changes during adulthood and old age for better skilling

CO2. Demonstrate different aspects of development and adjustments with reference to adulthood and old age for better skilling

CO3. Examine the principles and influencing factors of development with specific focus on adulthood and old age for better skilling

CO4. Evaluate the status of adults and elderly in contemporary society for better skilling

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	2	1	1	3	1	3	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	2	1	1	3	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1

References:

1. Bee, Helen L. (1996). *The Journey of Adulthood*, (3rd ed.): UpperSaddle River, N J: Prentice Hall.
2. Deats, S.M. & Lenker, L.T. (1991). *Aging and Identity*. London: Praeger.
3. Erber, Joan T. (2011). *Aging and Older Adulthood* (2nd ed.) U.S: Wiley-Blackwell.
4. Kermis, (1983). *The Psychology of Human Aging: Theory, Research & Practice*. London: Allyn & Bacon.
5. Lefranciois, G.R. (1996). *The Life span*. New York: Wordsworth Publishers.
6. Mason, Marion G. (2010). *Adulthood and Aging*. New Jersey: Prentice Hall, Inc..
7. Rice, F.P. (1992). *Human Development, A life span approach*. New Jersey: Prentice Hall.
8. Santrock, J.W. (1997). *Life span development*. IOWA: Brown and Bench Mark.
9. Vikery, F.E. (1972). *Creative Programming for older Adults*. Chicago: Association Press.

IFTM University, Moradabad
Course Code-BHSC-651
TEXTILE DESIGN

Course objective

To provide the knowledge and understanding of the traditional textile, theories, mechanism and use of various dyes and auxiliaries for dyeing and printing of textile substrates to provide employability & skills.

List of practical:

- A) Preparation of samples of all traditional embroideries to provide employability & skills.
- B) Preparation of samples / articles using various dyeing and printing techniques to provide employability & skills.

Course outcomes:

By the end of the course the students will be able to:

- CO1. Describe the process of dyeing of various fibers with different dyes for skill development.
- CO2. Understand the mechanism of dyeing with different dyes for skill development.
- CO3. Describe the methods and styles of printing to provide employability & skills.
- CO4. Explain about different Embroideries to provide employability & skills.

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	1	3	3	3	1	3	1	1	1	2	1	1
CO3	1	1	2	1	1	3	1	1	1	3	1	1
CO4	1	1	2	3	1	1	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1

Suggested Readings:

1. Sodhia Manmeet, "Dress Designing", Kalyani publishers, New Delhi.
2. Lynton Linda, " The Sari", Thames & Hadson.
3. Anand M.R., "Textiles & Embroideries of India " Marg Publication Bombay, 1965.
4. Naik Shailaja D, " Traditional Embroideries of India" APH Publisher Corporation, New Delhi, 1996.
5. Chattopadhyay K, " Indian Embroidery", Wiley Eastern Ltd., New Delhi, 1977
6. Clarke. W. 1974. An Introduction to Textile Printing. London, Newness Butter Worth.
7. Anderson, F. 1974. Tie-dyeing and Batik. London, Octopus Editorial Production by Berkeley Publishers Ltd.
8. Smith, J.L. Textile Processing: Printing, Finishing, Dyeing.
9. H.Panda. Modern Technology of Textile: Dyes & Pigments.

Website Sources:

- <https://www.fabricfarms.com/principles-of-design.html#:~:text=The%20elements%20of%20design%20include,scale%2C%20and%20harmony%20and%20unity.>
- <https://www.thesprucecrafts.com/stitches-every-embroiderer-should-know-4122123>
- <https://www.craftsvilla.com/blog/famous-indian-embroidery-styles/>
- Pdfdrive.com

IFTM University, Moradabad
Course Code: BHSC-652
ENTREPRENEURSHIP MANAGEMENT

Course objectives

To enable the students to:

- Understand the nature of entrepreneurial activities to provide employability & skills.
- Seek self-employment ventures for skill development.
- To impart information on the various sources of finance and also on the process of setting up small enterprise for better skilling of entrepreneurship
- Acquire skills in planning project proposals for better skilling of entrepreneurship

List:

1. SWOT analysis with respect to entrepreneurial competencies through case profiling of successful entrepreneurs and enterprises to provide employability & skills
2. Achievement Motivation lab-development of entrepreneurial competencies for better skilling of entrepreneurship
3. Survey of an institution facilitating entrepreneurship development in India for skill development.
4. Preparation of business plan for better skilling of entrepreneurship.

Course outcomes

After studying this course, the students would be able

CO1.To build on personal as well as external resources with a view to successfully launch and subsequently manage their enterprises to provide employability & skills.

CO2.To assess their strengths and weaknesses as entrepreneurs and identify how to strengthen their skills to provide employability & skills.

CO3.To select appropriate form of business and arrange required start-up capital for skill development.

CO4. Make sales, cost and cash flow plans for better skilling of entrepreneurship

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	2	1	2	3	1	1	1
CO2	1	3	2	3	1	1	1	1	1	2	1	1
CO3	2	3	1	1	1	3	1	1	1	3	1	1
CO4	1	1	3	1	1	2	1	1	1	1	1	2

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	3
CO2	3	2	3
CO3	3	2	3
CO4	3	2	3

Suggested Readings:

1. Rathore B.S., 1999, Entrepreneurship in 21st Century, Wheeler Publishing.
2. Khanka, S.S., Entrepreneurial development, S, Chand & Company Ltd.
3. Singh, N.P., 1985, Emerging Trends in Entrepreneurship Development: Theories & Practices, New Delhi: Intercultural foundation for development management.
4. Akhouri, M.M.P. Entrepreneurship for women in India, New Delhi, NIESBUD, 1990.
5. Jain, D. Women's Employment, Possibilities of Relevant Research Institute of Social Studies, 1980.
6. Nayak, J. Pinto, T. and Costa, S. Towards Self reliance, Income Generation for Women, ISI Programme of Women's Development, 1980. 35
7. Paul, J; Kumar, N.J. and Mampilly, Paul J. Entrepreneurship development, Himalaya Publishing House, Mumbai, 1996. New Delhi, 1998.
8. Arora, S. P., Business Organization, Vikas Publishing House Pvt. Ltd. New Delhi, (1980)
9. Bhattacharyya, S.K Accounting for Management, Vikas Publishing House Pvt. Ltd., New Delhi
10. Bhushan, Business Organization, Sultan Chand & Sons, New Delhi, (1985)
11. Chetnakal, Women and Development, Discovery Publishing House, New Delhi (1991)
12. Desai, N. (1985). Women, Change and Challenges in the International Decade, Bombay, Popular prakashana pvt. Ltd.
13. Desai, V. (1996). Entrepreneurial Development – Principles, Programmes and Policies (Vol.I), Formulation, Appraisal and Financing (Vol. II) and Programmes and Performance (Vol. III), Bombay, Himalaya Publishing House.

Website Sources:

- <https://www.slideshare.net/basitnazir/entrepreneurship-management-31560291>
- <https://www.slideshare.net/karheng1/business-entrepreneurship-management>
- <https://www.slideshare.net/Simranpreet5/project-formulation-78389404>
- <http://www.fao.org/3/a-au766e.pdf>
- Pdfdrive.com
- <https://www.slideshare.net/zulfiqer732/project-management-tools-and-techniques-pert-project-evaluation-and-review-technique-cpm-critical-path-method>

SKILL ENHANCEMENT ELECTIVE COURSES
IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science
SEC- 1 Understanding Psychology (Theory)

COURSE OBJECTIVES

- To develop a basic understanding of the discipline of Psychology for skill development
- To develop an appreciation of the relevance of Psychology in the study of Human Development for skill development
- To become conversant with conceptual models of human behavior for skill development

UNIT I: Introduction

(8 Sessions)

- Psychology as a discipline
- Perspectives on behavior
- Scope and major subfields of psychology for skill development
- Biological, social and cultural basis of behavior
- Psychology in modern India; Social Psychology
- Psychological disorders and Psychological test for skill development

UNIT II: Learning

(8 Sessions)

- Classical conditioning
- Operant conditioning
- Learning strategies; Learning in a digital world for skill development
- Application of theories in everyday life

UNIT III: Perception and Memory

(8 Sessions)

- Perceptual processes, role of attention in perception for skill development
- Attention
- Perceptual organization; perception of depth, distance and movement; illusions
- Models of memory: Levels of processing, Parallel Distributed Processing model for skill development
- Information processing, Reconstructive nature of memory; Forgetting, Improving memory for skill development

UNIT IV: Cognition, Emotion and Motivation

(8 Sessions)

- Role of cognition in emotion and motivation for skill development
- Components of emotions
- Intrinsic and extrinsic motivation
- Mental health

Course Outcomes: Students completing this course will be able to:

CO 1. Acquire understanding of fundamental psychological processes in human beings for global skill development

CO 2. Demonstrate understanding of psychology as a discipline and its core Concepts for global skill development

CO 3. Understanding of psychological core concepts for skill development

CO 4. Have a grasp of selected models of behavior, perception, memory and Motivation for global skill development

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	3	1	3	1	2	3	1	2	1
CO2	3	2	2	3	1	3	1	2	1	3	2	1
CO3	3	1	2	1	1	3	1	1	1	3	2	1
CO4	3	2	2	3	1	3	1	2	3	1	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	2	1	1
CO2	3	1	1
CO3	2	1	1
CO4	3	1	1

SUGGESTED READINGS:

- Morgan, Clifford T, King Richard A, Weisz, John R, Schopler John. (1993). Brief Introduction to Psychology Tata McgrawHill
- Woolfolk, A., Misra, G., & Jha, A. K. (2012). Fundamentals of Educational Psychology. Pearson
- Baron, R. & Misra. G. (2013). Psychology. Pearson.
- Ciccarelli, S. K., & Meyer, G. E. (2010). Psychology: South Asian Edition. New Delhi: Pearson Education
- Passer, M.W. & Smith,

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science

SEC- 2 Activities and Resources for Child Development-I (Practical)

COURSE OBJECTIVES

- To enable the students to understand the nature, aims and objectives of activities for fostering development during Infancy and Toddlerhood for skill development and employability
- To enable students to develop skills in working with child during Infancy and Toddlerhood and creating appropriate play materials for skill development and employability

PRACTICAL:

1. Infancy and Toddlerhood

Development during the first two years is rapid and hence the topic is subdivided in four parts. Each part focuses on a particular age group that would enable caregivers to understand the specific needs of growing children. Knowledge of needs would help them to plan appropriate activities for skill development and employability

2. Art Activities

- Painting and graphics
 - Painting with brush, drawing with crayons, chalk, rangoli on floor, finger painting.(Some special characteristics of this medium) for skill development
 - Values, materials required, use of substitutes from indigenous materials.
 - Teacher’s role in conducting activities for skill development
 - Stages in child art.
- Tearing, cutting, pasting and collage, mural
 - Values, materials required and Teacher’s role in conducting activities.
 - Development stages.
- Modelling
 - Values, special characteristics of this medium.
 - Techniques used, rolling, pressing, pinching, pasting, folding for skill development
 - Materials required i.e. clay, dough, plasticine, thick paper folding, stocking paper on hollow objects i.e. balloon cardboard cartoons, paper machine, wire, rope.
 - Teacher’s role for skill development and employability
- Printing
 - Types of printing i.e. block, string, leaf stencils, spray, crumpled paper, different textured surfaces.
 - Values, materials required techniques.
 - Teacher’s role stages in printing.
- Blocks
 - Some special features of this medium.
 - Types of blocks: hollow large blocks, unit blocks and small blocks.
 - Stages in block play.
 - Values, materials and accessories for block play.
 - Teacher’s role.

Course Outcomes: Students completing this course will be able to:

CO 1. Understand the developmental needs and activities for holistic development during Infancy and Toddlerhood for global skill development and national employability

CO 2. Learn skills in creating activities for fostering development during Infancy and Toddlerhood for global skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	2	3	1	2	2	1	2	1
CO2	3	2	3	3	1	3	1	2	1	2	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1

SUGGESTED READINGS:

- Beaty, J.J. (1996). *Preschool Appropriate Practices*. London: Harcourt Brace College Publishers.
- Carol, S. & Barbour, N. (1990). *Early Childhood Education: An Introduction: IInd Edition*.
- Contractor, M. (1984). *Creative drama and puppetry in education*, Delhi: National Book trust of India.
- Johnson, A.P. (1998). *How to use creative dramatics in the classroom*. *Childhood Education*, 26.
- Kaul, V. (1991). *Early Childhood Education Programme*. New Delhi: NCERT.
- Lasky, L. & Mukerjee, R. (1980). *Art Basic for Young Children*, Washington, D.C., NAEYC.
- Moomaw, S. (1984). *Discovering Music in Early Childhood*. Boston: Allyn and Bacon, Inc.
- Swaminathan, M. (1984). *Play activities for young children*, New Delhi: UNICEF.
- Swaminathan, M. (1991). *Play Activities for Young Children*. UNICEF.
- Taylor, B.J. (1985). *A Child Goes Forth Minneapolis: Burgess Publishing Co. (6th Ed.)*.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science
SEC- 3 Overview of Indian Economy (Theory)

COURSE OBJECTIVES

- Understand the major economic problems of India and their implications in society for better skilling of entrepreneurship
- To gain knowledge about various development policy measures adopted in the country for skill development and employability

UNIT I: Micro Economics

(8 Sessions)

- Definition, scope of Economics
- Central problems of an economy
- Wants – Classification and Characteristics
- Utility – Law of Diminishing Marginal Utility, Law of Equi-Marginal Utility
- Demand – Law of Demand, Elasticity of Demand
- Engel's Law of Consumption for better skilling of entrepreneurship
- Consumer's Surplus
- Supply – Law of Supply, Elasticity of Supply
- Equilibrium of Demand and Supply
- Factors of Production– land, labour, capital and Entrepreneurship for better skilling of entrepreneurship

UNIT II: Macro Economics

(8 Sessions)

- National Income estimates for better skilling of entrepreneurship
- Types of Markets
- Money
 - Types & functions of money
 - Value of money – quantity theory, Measurement of the value of money
 - Index number
 - Inflation
- Types & functions of Banks
- Revenue, Taxation and International trade, Balance of payment problems in India for skill development and employability

UNIT III: Indian Economic Environment

(8 Sessions)

- Indian Economy: Changing structure, Economic planning & NITI Aayog for skill development and employability
- Growth and Development indicators
- Importance of Indian agriculture, industries and tertiary sector
- Constraints on growth: Issues of population, income distribution, poverty, unemployment, inequality and migration, food security, health, education, gender and environment
- Current developmental policies of the Government of India for skill development

Course Outcomes: Students completing this course will be able to:

CO 1. Apprehend the basic concepts of economics and their utilization in day to day life and gain an understanding of National Income in India, working of the banking structure and monetary and fiscal policy and the balance of payment situation in India for better skilling of local entrepreneurship

CO 2. Comprehend the major economic problems of India and their implications in society for global skill development

CO 3. Understand various development policy measures adopted in the country for global skill development

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	3	2	2	3	1	2	3	1	2	1
CO2	2	2	3	2	1	3	1	2	1	3	2	1
CO3	2	1	3	1	2	3	1	1	1	3	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	2	2	3
CO2	3	2	2
CO3	3	2	2

SUGGESTED READINGS:

- Ahuja, H.L. Latest Edition. Modern micro economics. Sultan Chand & Sons (bilingual).
- Misra & Puri. Latest edition. Indian economy. Himalaya Publishing House.
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- Datt & Sundharam, latest edition. Indian economy. S. Chand.
- Dewett, K. K., & Navalur, M.H. Latest edition. Modern economic theory. S. Chand.
- Jhigan, M.L. Latest edition. Money, banking, international trade and public finance. Vrinda Publications.
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IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science
SEC- 4 Life Skills Education (Theory)

COURSE OBJECTIVES

- To develop social and interpersonal skills to cope with the demands of everyday life for skill development
- To build self-confidence and critical thinking for effective communication for skill development
- To inculcate skills to improve interpersonal relations and manage stress for skill development

UNIT I: Concept and Meaning of life skills for skill development **(8 Sessions)**

- Definitions and concept of life skills and life skills education.
- Importance in daily living; Criteria for using life skills.
- Evolution of Life Skills
- Core Life Skills- classification and concept
- Theoretical perspectives and models to understand life skills education.

UNIT II: Components for Planning & Organizing Life Skills Programs **(10 Sessions)**

A. Understanding group characteristics and needs for skill development

- Life skills in context: importance of focusing on contextual specificities and cultural ideologies as important aspects affecting individual ideas.
- Focusing on cultural practices that govern everyday life.
- Analyzing the gender nuances that exist within the group.
- Self components to imparting life skills program: critical thinking skills, decision making skills, interpersonal communication skills, coping with stress and emotions; self-management skills, etc.

B. Importance of communication in imparting life skills education for skill development

- Concept and Importance of communication
- Aspects to develop social potentials (effective listening, speaking, building and maintaining relationships, understanding group dynamics and functioning in groups, delegating responsibilities)

C. Core Approaches and Strategies to Implement Life Skills Program for skill development

- Understanding and developing self-skills/potential: self-awareness, self-esteem self confidence, creative thinking, interpersonal skills, etc.
- Use of participatory techniques and methods: Individual exercises, Group activities, games etc.
- Communicating with the audience: receiving feedback, handling questions, etc.

D. Organizing a Life Skills Program for skill development

- Planning a need based viable life skills program (select components)
- Determining the purpose, collecting materials, organizing content.
- Getting prepared for the presentation: psychological level
- Delivering the presentation

E. Life Skills Assessment for skill development

- Scales and quantitative techniques
- Qualitative approaches

UNIT III: Life Skills and Youth Development for skill development **(8 Sessions)**

- Adolescence and Youth- Definitions, Conception- socio cultural perspectives
- Youth demographics and role in society
- Challenges of adolescence and youth development
- Formal and Non formal approaches to youth development
- Positive Youth Development

Course Outcomes: Students completing this course will be able to:

CO 1. Develop social and interpersonal skills to cope with the demands of everyday life for global skill development

CO 2. Build self-confidence to help communicate effectively for global skill development

CO 3. Build critical thinking to help communicate effectively for global skill development

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	3	1	3	1	2	3	1	3	1
CO2	3	2	2	3	1	3	1	2	1	2	2	1
CO3	3	1	2	1	1	3	1	1	1	2	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1

SUGGESTED READINGS:

- Agochiya D. 2010, life competencies for adolescents. Training manual for facilitators, teachers and parents. Sage Publications.
- Dakar Framework for Action,(2000).Education for All: Meeting our Collective Commitments, Dakar, Senegal
- Peace Corps, OPATS.2001, Life Skills Manual.
- Nair .V. Rajasenan, (2010). Life Skills, Personality and Leadership , Rajiv Gandhi National Institute of Youth Development, Tamil Nadu.
- Nair. A. Radhakrishnan, (2010). LifeSkills Training for Positive Behaviour , Rajiv Gandhi National Institute of Youth Development, Tamil Nadu.
- National Aids Control Orgnization, 2008, Adolsecence Education Programme, Life Skills Development.
- Robbins S.P, Hunsaker P.L, Training in Interpersonal Skills (5theds), PHI Learning Pvt.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science
SEC- 5 Bakery Science (Practical)

COURSE OBJECTIVES

- To make aware a student of the scope of bakery industry for skill development and employability
- To make aware a student with the knowledge and understanding of the raw material used for preparation of various bakery products for skill development and employability
- To make aware a student with the basic operation and working of various equipments involved in bakery processing for skill development and employability

PRACTICAL:

- Current status and scope of Bakery Industry in India. Pertinent standards & regulations for skill development
- Ingredients & processes for cakes, breads, buns, pizza base, cookies and biscuits.
- Equipments used, product quality, characteristics, faults and corrective measures for skill development
- Modification of bakery products for people with special nutritional requirements e.g. high fibre, low sugar, low fat, gluten free bakery products.
- Preparation of cream cakes and its quality assessment.
- Preparation of sponge cakes and its quality assessment.
- Preparation of breads and its quality assessment for skill development and employability
- Preparation of buns its quality assessment for skill development and employability
- Preparation of pizza base its quality assessment for skill development and employability
- Preparation of cookies its quality assessment for skill development and employability
- Preparation of biscuits its quality assessment for skill development and employability

Course Outcomes: Students completing this course will be able to:

CO 1. Understand the scope of bakery industry for global skill development

CO 2. Understand different raw materials used for preparation of various bakery products for skill development and national employability

CO 3. Acquire knowledge of basic operations and working of different equipments involved in processing of bakery products for skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	2	3	2	3	3	2	3	1	2	1
CO2	2	3	2	3	1	3	3	2	1	2	2	1
CO3	2	1	2	1	2	3	3	1	1	2	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1

SUGGESTED READINGS:

- Dubey, S.C. (2007). Basic Baking 5th Ed. Chanakya Mudrak Pvt. Ltd.
- Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). The Art and Science of Cooking: A Practical Manual, Revised Edition. Elite Publishing House Pvt Ltd.
- Raina et.al. (2010). Basic Food Preparation-A Complete Manual. 4rd Ed. Orient Black Swan Ltd.
- Samuel A. Matz (1999). Bakery Technology and Engineering, PAN-TECH International Incorporated.
- Barndt R. L. (1993). Fat & Calorie – Modified Bakery Products, Springer US.
- Faridi Faubion (1997). Dough Rheology and Baked Product Texture, CBS Publications
- Manay, S. & Shadaksharaswami, M. (2004). Foods: Facts and Principles, New Age Publishers.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science

SEC- 6 Sociology of Working with Families and Communities (Theory)

COURSE OBJECTIVES

- To orient the students to understand the practical dimension of society and culture for skill development
- In depth understanding of the family relationship and its changing roles and responsibilities for skill development and employability
- Empower students to deal with socio economic problems of India for skill development and employability

UNIT I: Family, Society and Culture for skill development **(6 Sessions)**

- Various dimensions of family, society and culture
- Customs, belief and folklore in everyday life
- Cultural plurality, practices and ethnic identity
- Social groups
- Poverty and deprivation
- Role of media

UNIT II: Social Stratification and Its Implication for skill development **(6 Sessions)**

- Social mobility and social change
- Forms of social stratification and their interrelationships : class, caste , gender , ethnicity, race and occupation
- Ethnographic approaches to study caste groups; weavers and artisan communities

UNIT III: Emergence of New Ideological Orientation for skill development **(6 Sessions)**

- Conflicts and consensus in society
- Changing gender spaces in family, work and its implication on the individual and society across cultures
- Experiences of exclusion on the individual Caste, minority, disability, violence, immigration and religion

Course Outcomes: Students completing this course will be able to:

CO 1. Gain knowledge about various dimensions of society and culture for global skill development

CO 2. In-depth understanding of the family changing roles and responsibilities for global skill development

CO 3. Educate students to deal with socio economic problems of India for global skill development

PO – CO Mapping **(Please write 3, 2, 1 wherever required)**

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	2	3	1	2	2	1	2	1
CO2	3	2	3	3	1	3	1	2	1	3	2	1
CO3	3	1	3	1	2	3	1	1	1	3	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	2
CO2	3	2	2
CO3	3	2	2

SUGGESTED READINGS:

- Abraham, M.F. (2006). Contemporary Sociology: An introduction to concepts and theories: New York: Oxford University Press.
- Das.V. (Ed.) (2003) .The Oxford companion to sociology and social anthropology: volume 1 and 2. New Delhi: Oxford University Press.
- Rawat. H.K. (2007). Sociology: Basic concepts. New Delhi: Rawat Publications.
- Beattie, J. (1964). Other cultures. Cohen and West.
- Bhushan Vidya& Sachdev.D.R. (2011). Introduction to Sociology: New Delhi: Kitab Mahal Publishers.
- Journal of Contribution to Indian Society

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science
SEC- 7 Going About Research (Theory)

COURSE OBJECTIVES

- To understand the different research approaches for skill development and employability.
- To gain knowledge about the process of research for skill development
- To develop skills for developing tools for data collection for skill development and employability

UNIT I: Purpose and approaches of research

(6 Sessions)

- Exploration, Description, Explanation
- Scientific method and research designs
- Quantitative and Qualitative approaches

UNIT II: Conceptualization and Measurement

(6 Sessions)

- Variables, concepts and measurement
- Levels of measurement

UNIT III: The Research Process

(6 Sessions)

- Defining the problem, research questions and objectives
- Planning the research methodology
- Decisions about sampling

UNIT IV: Research Technique

(4 Sessions)

- Research tools and techniques: types, validity and reliability
- Ethics in research

Course Outcomes: Students completing this course will be able to:

- CO 1. Understand the differences between quantitative and qualitative research approaches.
 CO 2. Develop knowledge about research Measurement
 CO 2. Develop knowledge of the key steps of a research process
 CO3. Skills in designing of tools of data collection and their appropriate use

PO – CO Mapping

(Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	3	1	3	1	2	3	1	2	1
CO2	3	2	2	3	1	3	1	2	1	3	2	1
CO3	3	1	2	1	1	3	1	1	1	3	2	1
CO4	3	2	2	3	1	3	1	2	3	1	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	2	1	1
CO2	3	1	1
CO3	2	1	1
CO4	3	1	1

SUGGESTED READINGS:

- Kerlinger F. N. and Lee, H.B. (2000) Foundations of Behavioural Research 4th Ed.Harcourt College Publishers
- Kumar, R. (2005) Research Methodology: A Step by Step Guide for Beginners. Sage Publications, New Delhi.
- Ramamurthy, G.C., (2011), Research Methodology, Dreamtech Press India Private Limited, New Delhi.
- Black, J.A. and Champion, D. J. (1976) Methods and Issues in Social Research. New York: John Wiley and Sons.
- Kothari, C. R. (2008) Research Methodology: Methods and Techniques 2nd Ed. New Age International Private Ltd, New Delhi.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science
SEC- 8 Early Childhood Care and Education (Practical)

COURSE OBJECTIVES

- To enable the students to understand the nature, aims and objectives of Early Childhood Care and Education for skill development
- To enable students to develop skills in working with child using play and educational materials.
- To help students learn methods to evaluate components of a quality programme for young children for skill development

PRACTICAL:

UNIT I: Developmental Needs of Children birth-6 yrs 24 for skill development

- To prepare a checklist/ observation guide to study various aspects of child's environment based on developmental needs (using rights- based approach)
- To conduct an observation of children in two different contexts using prepared checklist.
- To analyse and document the observations made in the two settings.

UNIT II: Domain Related Development Indicator for skill development

- To observe children in three developmental age groups birth-2 years; 2-4 years; 4-6 years. (videos and field observations).
- To analyse and document the observations of the children in three age groups.

UNIT III: Activities for Fostering Development Birth-6 yrs for skill development

- To create learning material for fostering development in various age groups and domains.
- To conduct any one of activity planned in the class (storytelling, puppet show, drama).
- To prepare a checklist to study major components of an ECCE programme.

UNIT IV: Components of an ECCE Programme for skill development

- To visit two ecce programmes for children to understand major components using the checklist.
- To organise workshop in any of the following:
 - Understanding childhood nutrition and health
 - Developing worksheets to teach concepts
 - Enhancing social and language skill
 - Music, movement and drama for children
- To plan a curriculum.
- To design space for an ECCE programme
- Resources and material equipment, toys and books for children
- Records keeping
- Evaluation indicators of ECCE programs

Course Outcomes: Students completing this course will be able to:

CO 1. Develop skills in observing and documenting the developmental needs of children from birth to 6 years of age in different contexts for global skill development

CO 2. Learn skills in assessing developmental indicators using tools and techniques for global skill development

CO 3. Develop skills in creating learning materials and use them in family, ECCE centre and community for global skill development

CO 4. Identify the components of a quality programme for children in multiple contexts for global skill development

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	2	2	1	2	3	1	2	1
CO2	3	3	2	2	1	2	1	2	1	3	2	1
CO3	3	1	2	1	2	2	1	1	1	3	2	1
CO4	3	2	2	2	1	2	1	2	3	1	2	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	2	3	1
CO2	2	3	1
CO3	2	3	1
CO4	2	3	1

SUGGESTED READINGS:

- Organizing a Child Care Centre. Indira Gandhi National Open University DECE Study Material
- Play Activities for Preschoolers – 1 and 2. Indira Gandhi National Open University DECE Study Material
- Romila Soni, R. (2015). Theme Based Early Childhood Care and Education Programme: A Resource Book. National Council of Educational Research and Training.
- Swaminathan, M. (1998). The First five Years. Sage Publications.
- Theory and Practice in Early Childhood Care and Education. Managing Children’s Programmes: Some Perspectives. Indira Gandhi National Open University DECE Study Material
- Aggarwal, J. C. (2007). Early Childhood Care and Education: Principles and Practices. Shipra: New Delhi.
- Arni, K. and Wolf G. (1999). Child Art with Everyday Materials. TARA Publishing.
- Mohanty, J. Mohanty, B. (1996). Early childhood Care and Education. Deep and Deep Publication, New Delhi.
- Morrison, G. S. (2003). Fundamentals of Early Childhood Education. Merrill/Prentice Hall: Virginia
- Singh, A. (1995). Playing to Learn: A Training Manual for Early Childhood Education. M. S. Swaminathan Research Foundation.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science
SEC- 9 NGO Management & CSR (Theory)

COURSE OBJECTIVES

- To understand the nature, role and functioning of various organisations engaged in the development sector for skill development and employability
- To highlight the various CSR initiatives undertaken at the national and global level for skill development and employability

UNIT I: Concept of NGO for skill development **(6 Sessions)**

- Definition, meaning and characteristics of NGO
- Growth of NGOs: Historical perspective, current status of NGOs in India
- Difference between Government Organizations and NGO
- Classification of NGO
- Structure and functioning of NGO
- Contribution of NGO in the Development
- Role of Development Communicator in NGO development.

UNIT II: Starting of NGO for skill development and employability **(6 Sessions)**

- Steps for starting NGO
- Registration of NGO
- Selection and training of Personnel
- Proposal writing under NGO
- Identifying Funding agencies
- Resource Mobilization
- Planning, Implementation and Evaluation strategy under NGO
- Documentation
- Networking

UNIT III: NGO Management for skill development and employability **(6 Sessions)**

- Organizational types and structures
- Managing people and teams in NGOs
- NGO management competencies
- Applying NGO principles and values
- Accountability and impact assessment for NGOs
- Challenges of NGOs: Training, Recruitment, Funding, Resource Mobilization

UNIT IV: Corporate Social Responsibility (CSR) for skill development **(6 Sessions)**

- Concept of CSR: Companies Act and legal framework
- Principles of CSR, Acts & Laws
- CSR Initiatives, reporting and monitoring frameworks
- CSR Initiatives: National and Global Case studies

Course Outcomes: Students completing this course will be able to:

- CO 1. Understand the nature and role of various organizations engaged in the development sector for global skill development
- CO 2. Strategies for creating resources for effective functioning of development organizations for skill development and national employability
- CO 3. Understand the basic concepts of Corporate Social Responsibility (CSR) and its impact on sustainable development for global skill development and national employability
- CO 4. Learn about CSR initiatives at global and national level for skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	3	1	2		2	3		3	
CO2	3	2	2	3		2		2		2	2	
CO3	3		2		1	2				2	2	
CO4	3	2	2	3		2		2	3		2	

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
 (Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	2	1
CO2	3	3	2
CO3	3	3	2
CO4	3	2	1

SUGGESTED READINGS:

- D. Lewis, Management of Non-Governmental Development Organization (2001), Second Edition, Published by Routledge, Newyork.
- S. Chandra, Guidelines for NGO Management in India (2003), Published by Kanishka Distributors, New Delhi
- Abraham, Formation and Management of NGOs (2003), Third Edition, Published by Universal Law Publishing Co. Pvt Ltd., New Delhi.
- Aggarwal, S.2008, Corporate Social Responsibility in India, Sage publication Pvt. Ltd.
- Sundar, P. 2013, Business and Community: The Story of Corporate Social Responsibility in India , New Delhi, Sage Publication.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science
SEC- 10 Housing Keeping (Theory)

COURSE OBJECTIVES

- To understand the role of housekeeping in the hospitality industry, vis-à-vis, the services and facilities offered for skill development and employability
- To comprehend the operations management in cleaning and maintenance activities of the hospitality sector for skill development and employability
- To acquire knowledge about the kind of accidents and safety systems in the hospitality institutions for skill development

UNIT I: Housekeeping: Facilities and Services

(6 Sessions)

- Role of housekeeping in hospitality industry for skill development
- Organizational chart of housekeeping department
- Planning, organization & communication of housekeeping activities
- Co-ordination with other housekeeping departments for skill development
- Roles and responsibilities of personnel in the housekeeping department

UNIT II: Cleaning

(10 Sessions)

- Cleaning Activity and Pest Control for skill development
 - Cleaning agents - selection and use for different surface
 - Cleaning equipment - selection, care and maintenance for skill development and employability
 - Cleaning techniques - Daily, weekly, yearly; procedure for cleaning of guest room and public area
 - Types of common pests and effective methods of control
- Linen and uniform room
 - Layout plan and physical features of linen and uniform room
 - Types of linen and uniform, their selection
 - Storage procedure for linen and uniforms for skill development and employability
 - Stock determination, control and distribution, record keeping, inventory taking
 - Linen and uniform room, staff and their duties
- Laundry
 - Types of laundry systems - In house, contracted out and linen on hire for skill development and employability
 - Layout plan and physical features of a laundry
 - Laundry procedure: Collection, sorting & making, stain removal and washing preparations, extractions and drying, ironing & folding, inspection, packaging, storage delivery
 - Laundry supplies and materials: Water, Soaps, Detergents, Bleaches, Laundry blues, Stiffening agents and Iron
 - Dry cleaning procedure for skill development and employability

UNIT III: In House accidents, Fire safety and First Aid

(6 Sessions)

- Types of accidents commonly occurring in hospitality institutions, methods to avoid and/or reduce accidents, differences between major and minor accidents in the hospitality institutions.
- Fire safety measures in the institution for skill development and employability
- First aid for commonly occurring health problems for skill development

Course Outcomes: Students completing this course will be able to:

CO 1. Appreciate the need for maintenance of facilities and services for global skill development

CO 2. Understanding operations management in cleaning and safety systems for global skill development and employability

CO 3. Develop competence for professional practice in housekeeping for global skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped) :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	3	2	3	1	2	3	1	3	1
CO2	3	2	2	3	1	3	1	2	1	3	3	1
CO3	3	1	2	1	2	3	1	1	1	3	3	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	2
CO2	3	3	2
CO3	3	3	2

SUGGESTED READINGS:

- Sudhir, Andrews (1985). Hotel Housekeeping: Training Manual. Tata McGraw-Hill Publishing Co. Ltd., New Delhi. Chapter 11: pp 304-319;
- Schneider, Madelin, Tucker, Georgina and Scoviak, Mary (1998). The Professional Housekeeper. John Wiley & Sons, Inc.,New York. Chapter 13: pp 247-262

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science
SEC- 11 Basics of Design (Theory)

COURSE OBJECTIVES

- To enable students to understand the basic concepts of design applicable to interior spaces for skill development and employability
- To develop proficiency in presentation of design drawings for creating aesthetic and sustainable interior and exterior spaces for skill development and employability

UNIT I: Design Fundamentals

(8 Sessions)

- Concepts of design
- Types of design: structural & decorative for skill development
- Elements of content: space, point, line, shape, form, texture, light & color for skill development
- Elements of order: scale, similarity, proximity, sequence, trends, themes & geometrical organization
- Principles of composition – rhythm, balance, proportion, emphasis, unity, (variety, simplicity/economy, suitability)
- Color & its application
 - o Dimensions of color
 - o Importance of color & its role in creation of the design for skill development and employability
 - o Color systems: color schemes
 - o Color trends for skill development and employability
- Design drawing – drawing as a language to explore & communicate ideas

UNIT II: History of Design

(8 Sessions)

- History of interior design – including periods like Mughal architecture, Colonial style, Renaissance
- Sustainable design for skill development and employability
- Traditional and modern surface finishes – types and uses: for skill development and employability
 - o Wall
 - o Floor
 - o Ceilings
 - o Roofing

UNIT III: Furniture & Furnishings

(8 Sessions)

- Furniture – types, construction, selection and purchase, arrangement, care and maintenance for skill development and employability
- Material selection for furniture and furnishings and its application for:
 - o Reuse
 - o Recycle
 - o Refurbish
- Contemporary trends in interior design with respect to furniture, furnishings & accessories
- Furnishings – selection, care and maintenance of fabrics used for:
 - o Soft furnishings: curtains and draperies, upholstered furniture, cushions and pillows, etc. for skill development and employability
 - o Floor coverings
- Lighting applications for skill development and employability:
 - o Energy efficient lighting
 - o Types of lamps and luminaires
- Accessories – uses, classification, design, selection & arrangement

Course Outcomes: Students completing this course will be able to:

CO 1. Comprehend the concept of design applicable to interior spaces for global skill development and employability

CO 2. Proficiency in presentation drawings to be used in design profession and ability to use of Computer-aided-design to prepare interior plans for skill development and national employability

CO 3. Understand the application of materials and finishes to create aesthetic and sustainable interiors for skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped) :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	3	2	3	1	2	3	1	2	1
CO2	2	2	2	3	1	3	1	2	1	2	3	1
CO3	2	1	2	1	2	3	1	1	1	2	3	1

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)

(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1

SUGGESTED READINGS:

● Premavathy, Seetharam. & Pannu, Parveen (2005). Interior Design and Decoration. CBS Publishers & Distributors, New Delhi Chapter 8: Pg 148-165, Chapter 11: Pg 213-227

● Allen, P.S & Stimpson, M.F. (n.d.). Beginning of Interior Environment. New York: Macmillan College Publishing Company.

IFTM University, Moradabad
Bachelor of Science (B.Sc.) Programme
B.Sc. Home Science
SEC- 12 Textile Design (Practical)

COURSE OBJECTIVES

- To enable the students to create ornamentation through colour application, threads and fabric layering for skill development and employability
- To impart skills to manipulate fabric to create design and decoration for skill development and employability

PRACTICAL:

- 1.Fabric manipulation –cuts, removal of threads for skill development
- 2.Surface Decoration - Embroidery, Ari work, Embellishments
- 3.Design through color application
 - Painting for skill development and employability
 - Dyeing- Tie and dye, Batik for skill development and employability
 - Printing- Discharge, Resist, Block, Screen, Stencil
- 4.Surface layering
 - Applique- simple, cut, felt for skill development and employability
 - Quilting- hand and machine
 - Pleats
 - Tucks

Course Outcomes: Students completing this course will be able to:

- CO 1. Describe fabric manipulation methods for global skill development
 CO 2. Identify different methods of surface decoration for global skill development and national employability
 CO 3. Explore designing through colour application for skill development and national employability
 CO 4. Use of thread structure in textile designing for global skill development and national employability

PO – CO Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	2	3	3	3	1	2	2	1	2	3
CO2	2	3	3	3	1	3	1	2	1	2	2	3
CO3	2	1	2	1	3	3	1	1	1	2	2	3
CO4	2	3	2	3	1	3	1	2	2	1	2	3

CO- Curriculum Enrichment Mapping (Please write 3, 2, 1 wherever required)
(Note: 3 for highly mapped, 2 for medium mapped and 1 for low mapped)

	Skill Development	Employability	Entrepreneurship Development
CO1	3	3	2
CO2	3	3	2
CO3	3	3	2
CO4	3	3	2

SUGGESTED READINGS:

- Juracek, A. Judy, 2000, Soft Surface, Thames & Hudson Ltd.
- Milne D'Arcy Jean, 2006, Fabric Left Overs, Octopus Publishing Group Ltd.
- Singer Margo, 2007, Textile Surface Decoration-Silk & Velvet, A&C Black Ltd
- Campbell, J. & Bakewell, A., 2006, The Complete Guide to Embroidery Stitches: Photographs, Diagrams, and Instructions for Over 260 Illustrated Stitches, Reader's Digest Association.
- Colton, V., 1979, Reader's Digest Complete Guide to Needlework, Reader's Digest Association.
- Singer, R., 2013, Fabric Manipulation, David & Charles Publishers.