National Education Policy-2020

Common Minimum Syllabus for Uttarakhand State Universities and Colleges

First, Second and third year Syllabus for Bachelor of Science (Home Science)

DEPARTMENT OF HOME SCIENCE
SURAJMAL AGARWAL PRIVATE KANYA MAHAVIDYALAYA

Kichha, Udham Singh Nagar Uttarakhand
(Affiliated to Kamaun University, Nainital, Uttarakhand)

EXPERT COMMITTEE

S.NO.	NAME	DESIGNATION	DEPARTMENT	AFFILIATION
1.	Prof. Lata Pandey	Convenor and Head	Department of Home Science D.S.B Campus	Kumaun University, Nainital
2.	Dr. Chhavi Arya	Expert, Associate Professor	Department of Home Science, D.S.B Campus	Kumaun University, Nainital
3.	Dr. Meena Batham	Expert, Associate Professor	Department of Fabric and Apparel Science, Institute of Home Economics, Delh	Delhi University
4.	Dr. Mukta Singh	Expert, Head	Department of Home Science, M.M.V.	B.H.U., Uttar Pradesh
5.	Dr. Manisha Ghalot	Expert, Head	Deptt. of Apparel & Textile Science	GBPUA&T, Pantnagar
6..	Dr. Rekha Naithani	Expert, Head	Department of Home Science	BGR Campus, Pauri, C.U. Garhwal
7.	Dr. Sunita Rani	Expert, Head	Department of Home Science	Kumaun University, Nainital
8.	Mr. Satish Kandpal	Registrar	Gyanarthi College, Kashipur	Kumaun University, Nainital

SYLLABUS PREPARATION COMMITTEE

S. NO.	NAME	DESIGNATION	DEPARTMENT	AFFILIATION
1.	Dr. Sunita Rani	Head	Department of Home Science, SAPKM, Kichha	Kumaun University, Nainital
2.	Dr. Janki Joshi	Assistant Professor	Department of Home Science, SAPKM, Kichha	Kumaun University, Nainital
3.	Dr. Neha Tiwari	Assistant Professor	Department of Home Science, SAPKM, Kichha	Kumaun University, Nainital
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6.	Mrs.Ankita Punetha	Teaching Assistant	Department of Home Science, SAPKM, Kichha	Kumaun University, Nainital
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Course Title- Textile Designing & use of CAD
Course Title- Programme Planning, Implementation and Evaluation

List of Papers (DSC, DSE, GE, VAC, SEC) with Semester Wise Titles for 'Home Science'					
Year	**Semester**	**Course**	**Paper Title**	**Theory/ Practical**	**Credits**
Undergraduate Certificate in Home Science					
FIRST YEAR		DSC-1	Principles of Nutrition	Theory	4
		DSC-2	Introduction to Clothing Construction	Theory	4
		DSC-3	Practical on Introduction to Clothing Construction	Practical	4
		GE-1	General English & Technical Writing	Theory	4
		AEC-1	Indian language **(as decided by university)**	-	2
		SEC-1	Personality Development	Theory	2
		VAC-1	Value Addition of Apparels	Practical	2
	II	DSC-4	Fundamental of Human Development	Theory	4
		DSC-5	Household Dynamics and Management of Resources	Theory + Practical	3+1
		DSC-6	Communication and Instructional Technology	Practical	4
		GE-2	Computer Application	Theory + Practical	2+2
		AEC-2	Indian language **(as decided by university)**	Theory	2
		SEC-2	Fashion Apparel Designing	Theory +Practical	1+1
		VAC-2	Value Added product from fruits and Vegetables	Practical	2
Undergraduate Diploma In Home Science					
		DSC-7	Food Processing and Storage	Theory	4
		DSC-8	Indian embroidery and Traditional Textiles	Theory	4
SECOND YEAR	III	DSC-9	Practical based on DSC-7 and DSC-8	Practical	4
		DSE-1 or GE-3	Ergonomic design or Life Span Development	Theory+ Practical or Theory	2+2 or 4
		AEC-3	Indian language **(as decided by university)**	-	2

		IAPC or SEC-3	Internship/Apprenticeship/ Project/ Community Outreach or Guidance and Counseling	Practical Theory	2
		VAC-3	Ayurveda and Nutrition	Theory + Practical	1+1
	IV	DSC-10	Introductory Textile Science	Theory	4
		DSC-11	Fundamentals of Baking	Theory	4
		DSC-12	Practical based on DSC-10 and DSC- 11	Practical	4
		DSE-2 or GE-4	Community Nutrition or Family Financial Management & Consumer Economic	Theory + Practical or Theory	2+2 or 4
		AEC	Indian language **(as decided by university**)		2
		IAPC Or SEC-4	Internship/Apprenticeship / Project/Community outreach Or Public Speaking	Practical	2
		VAC-4	Fashion Illustration	Practical	2
Bachelor in Home Science (Honours)					
		DSC-13	Therapeutic Nutrition and Diet Counseling	Theory	4
		DSC-14	Fabric Formation and Finishes	Theory	4
THIRD YEAR	V	DSC-15	Practical based on DSC-13 and DSC-14	Practical	4
		DSE-3	Entrepreneurship Development	Theory+Practical	3+1
		GE-5	Population and Family Life Education	Theory	4
		IAPC Or SEC-5	Internship/Apprenticeship/ Project/Community outreach Or Sustainable Development	Theory	2
	VI	DSC-16	Food Science	Theory	4
		DSC-17	Fundamentals of Housing and Interior Decoration	Theory	4

		DSC-18	Practical on DSC-17	Practical	4
		DSE-4	Textile Designing & Use of CAD	Theory+ Practical	2+2
		GE-6	Programme Planning, Implementation and Evaluation	Theory	4

Department of Home Science
Semester-I
Undergraduate Certificate in Home Science
DISCIPLINE SPECIFIC COURSE (DSC-1) - Principles of Nutrition

No. of Hours-60

CREDITDISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-1 Principles of Nutrition	4	4	0	0	Passed class XII with Science, Arts and Commerce	Nil

UNDERGRADUATE CERTIFICATE IN HOME SCIENCE		
Programme/Class: Certificate in Home Science	**Year: First**	**Semester: 1st Paper- DSC-1**
Subject : Home science		
Course- DSC-1	**Course Title: Principles of Nutrition**	

Course outcomes: After studying this course, the students will be able to:

- To understand the principles and basic knowledge about nutrients.
- To understand the role of essential nutrients (macro and micro) in human nutrition.

Credits: 4	**Discipline Specific Course**
Max. Marks: As per Univ. rules	**Min. Passing Marks: As per Univ. rules**

Unit	Topics	No. of Hours
Unit I	**Food:** • Definition of food, nutrition, functions of food – Physical, social and mental. • Food groups. Meal planning, balanced diet, nutritional value of food	10
Unit II	**Composition and importance of following foods:** • Cereals and legumes • fats and oilseeds, • Fruits and vegetables, • Milk and milk products, • Eggs, meat, fish and poultry, • Sugar.	10

Unit III	**Macronutrients:** • Carbohydrates – Classification, sources, functions and requirements • Protein and amino acids – Classification, sources, functions and requirements, nitrogen balance, deficiency of protein. • Fat and lipids- Classification, sources, functions and requirements	20
Unit IV	**Water and electrolytes:** • Functions, requirements and sources • Water balance **Electrolytes:** • Sodium Chloride, Potassium – sources, RDA, functions	10
Unit V	**Energy:** • Factor affecting energy requirements. • BMR, DIT(diet induced thermogenesis)	10

Recommended Readings

1. Bamji, M.S Rao, NP and Reddy, V. 1996.Text book of Human Nutrition.
2. B. Srilakshmi, Food science, New Age Publishers,2002.
3. B. Srilakshmi, Nutrition Science,8th Edition New Age Publishers, 2023

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature- study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-I
Undergraduate Certificate in Home Science
DISCIPLINE SPECIFIC COURSE (DSC-2) - Introduction to Clothing Construction

No. of Hours-60

CREDITDISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-2 Introduction to Clothing Construction	4	4	0	0	Passed class XII with Science, Arts and Commerce	Nil
Programme/Class : Certificate in Home Science		Year: First			Semester: I	
Course: DSC-2		Course Title: Introduction to Clothing Construction				

Course outcomes:

- To develop knowledge about sewing machine, parts of sewing machine, analyze basic constructional processes.
- To develop the skills in clothing construction for children's garments

Credits: 4	**Discipline Specific Course**
Max. Marks: As per Univ. rules	**Min. Passing marks: As per Univ. rules**

Unit	Topics	No. of Lectures
I	**Sewing machine and its equipment/tools** • Sewing machine: Parts of machine, their use and care • Tools required: Measuring, drafting, cutting and stitching;	9
II	Clothing Construction Terminology	8
III	**Constructional processes:** • Hand stitches, • Seam and seam finishes, • disposal of fullness, • Plackets and edge finishing, • Suitability for different fabrics and clothing articles	15
IV	Preparation of fabric for layout and cutting; stay stitching	6
V	Unit construction method and fitting	6
VI	Importance and function of clothes	6
VII	Clothing requirements of infants, toddler, pre-school and elementary school children	8
VIII	Anthropometric measurements: Importance and techniques	5
	Total	**60**

Suggested Readings:

1. Carson, B. 1969. How you look dress. 4th Ed. New yark . Webster Division., McGrw-Hill book company.
2. Doongaji, S. and Deshpande, R. Basic process and clothing construction. 2nd Ed. New Delhi,New Raj book Depot.
3. Lewis, V. S. *Comparative Clothing Construction Techniques*. Surjeet Publication, Delhi
4. Mansfield, E. A. and Lucas, E.L. 1974. Clothing construction. 2nd ed. London, Houghton Mifflin Company.

Suggested Digital Platform:

http://ecoursesonline.iasri.res.in/course/index.php?categoryid=104

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-I

Undergraduate Certificate in Home Science

DISCIPLINE SPECIFIC COURSE (DSC-3) - Practical based on DSC-2

No. of Hours-120

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-Requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-3 Practical on Introduction to Clothing Construction	4	0	0	4	Passed class XII with science, Arts and commerce	Nil

UNDERGRADUATE CERTIFICATE IN HOME SCIENCE

Programme/Class: Certificate in Home Science	Year: First	Semester: First Paper: DSC-3

Subject: Home Science

Course: DSC-3	Course Title: Introduction to Clothing Construction

Course outcomes:

After studying this course, the students will be able to:

- To develop knowledge about sewing machine, parts of sewing machine, analyze constructional processes.
- Gain the practical knowledge for construction of children‟s garments.

Credits: 4	Discipline Specific Course
Max. Marks: As per Univ. rules	Min. Passing Marks: As per Univ. rules

Unit	Topics	No. of Hours
Unit I	Demonstration on: sewing equipment and tools, sewing machine and its care	20
Unit II	Preparation of samples of basic hand stitches, machine stitches, edge finishing, fullness, finishing of necklines, placket opening, fasteners, mending and patching	20
Unit III	Demonstration on the preparation and layout of the different fabrics of plain, print, plaid, check and lines	20
Unit IV	Introduction to anthropometric measurement	20

Unit V	Drafting, cutting and stitching of different children's garments • Bib, • Panty, • Bloomer, • Jhabla, • Frock	20
Unit VI	Stitching of • Apron, • Hand bag or Laundry bag	20

Suggested Readings:

1. Carson, B. 1969. How you look dress. 4th Ed. New yark . Webster Division., McGrw-Hill book company.
2. Doongaji, S. and Deshpande, R. Basic process and clothing construction. 2nd Ed. New Delhi,New Raj book Depot.

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-I
Undergraduate Certificate in Home Science
GENERIC ELECTIVE (GE-1)- General English & Technical Writing

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre- requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
GE-1 General English & Technical Writing	4	4	0	0	Passed class XII with Science, Arts and Commerce	Nil

UNDERGRADUATE CERTIFICATE IN HOME SCIENCE		
Programme/Class: Certificate in Home Science	Year: First	Semester: First Paper: GE-1
Subject: Home science		
Course: GE-1	Course Title: General English & Technical Writing	

Course outcomes: After studying this course, the students will be able to:

- To improve ability in English to form comprehends writing and speaking in modern English.

Credits: 4	Generic Elective
Max. Marks: As per Univ. Rules	Mini. Passing Marks: As per Univ. Rules

Unit	Topics	No. of Hours
Unit I	Word – Formation	5
Unit II	Preposition	5
Unit III	Idiomatic Expressions	5
Unit IV	Conditional Sentences and Modal verbs	5
Unit V	Synthesis and Transformation	5
Unit VI	Writing related concepts-writing process, aspects and basic principles of good writing	5
Unit VII	Communication through writing- reasons and needs, word function, formulas of language, sentence and paragraph sense	10
Unit VIII	Introduction and importance of styles of writing-technical writing,	10

Unit IX	Types of reports-recommendations, proposals, progress report, oral reports, business letters and professional	10

Recommended Readings:

- LN, W. Standard. Living English structure, Orient Longmans, London.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-II Undergraduate Certificate in Home Science

DISCIPLINE SPECIFIC COURSE (DSC-4)- Fundamentals of Human Development

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-4 Fundamentals of Human Development	4	4	0	0	Passed class XII with Science,Arts and Commerce	Nil

UNDERGRADUATE CERTIFICATE IN HOME SCIENCE		
Programme/Class: Certificatein Home Science	Year: First	Semester: Second Paper: DSC-4
Subject: Home Science		
Course : DSC-4	Course Title: Fundamentals of Human Development	

Course outcomes: After studying this course, the students will be able to:

- Define human development and summarize several theories of development.
- Apply developmental theories to personal development.

Credits: 4	Discipline Specific Course
Max. Marks: As per Univ. rule	Min. Passing Marks: As per Univ. rules

Unit	Topics	No. of Hours
Unit I	Importance of human development from a life span perspective, Issues in human development, stages of human development.	10
Unit II	a. Methods of studying human development, steps of studying behaviour scientifically b. Non experimental and experimental studies, naturalistic studies; clinical studies; cross-sectional and longitudinal designs	10
Unit III	Ethical considerations in studying human development subjects	10
Unit IV	The psychology of behaviours: Definition of Psychology; meaning of sensation; perception; concept formation; imagination and creativity	15

Unit VI	Major development theories: • Freud‟s theory • Erikson‟s theory • Piaget‟s theory • Kohlberg‟s theory	15

Recommended Readings:

- Laura, B.E. (2013). Exploring life span development. 3rded. McGraw Hill, New York. Papalia,
- D.E. and Olds, S. W. (2008). Human development. 11thed. McGraw Hill, New York.
- Bronfenbrenner, V. (1979). The ecology of human development. Cambridge, Harvard Univ. Press.
- Berk, L. E. (2007). Development through the lifespan. Delhi: Pearson 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:
- McGraw-Hill. • Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient Black Swan.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-II
Undergraduate Certificate in Home Science
DISCIPLINE SPECIFIC COURSE (DSC-5)- Household Dynamics and Management of Resources

No. of Hours-45+30

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-5 Household Dynamics and Management of Resources	4	3	0	1	Passed class XII with Science, Arts and Commerce	Nil

UNDERGRADUATE CERTIFICATE IN HOME SCIENCE		
Programme/Class: Certificate in Home Science	**Year: First**	**Semester: Second Paper: DSC-5**
Subject: Home Science		
Course: DSC-5	**Course Title: Household Dynamics and Management of Resources**	

Course Outcomes:
After studying this course, the students will be able to:

- To give insight about management principle and ability to apply the knowledge for problem solving.
- To become good managers and understand the importance of managing resources to achieve goals.

Credits:4	Discipline Specific Course
Max. Marks: As per Univ. rule	Min. Passing Marks: As per Univ. rules

Unit	Topics	No. of Hours
Unit I	Family: Meaning, definition, classification, functions of family and family life cycle.	5
Unit II	Management concepts: Meaning of management, purpose of home management, major home and family responsibilities.	10
Unit III	Motivating factors for management: Values, Goals and Standard, Decision making: Decision making process, Role and scope of decision making, Classification of decision, methods of resolving conflicts.	10
Unit IV	Management process: Meaning, importance, and steps of management process. System approach to management: System concepts applied to households.	5

Unit V	Energy management: Fatigues, and its types, work simplification and its techniques, Mundel‟classes of change, Inter linking time and energy resources.	10
Unit VI	Time management: Time demands in different stages family life cycle, Time Plan and Tools of Time management	5
	Practical	
I	Identification of individual and family values	5
II	Identification of immediate, short term and long term goals of individual and family, Standards for individual and family goals	5
III	Management of personal time record for daily, a week and semester. Presentation of personal time record.	10
IV	Application of management process to organize an event– planning, organization, evaluation	10

Recommended Readings:

- Mann, M.K. (2004). Home Management for Indian Families, Kalyani Publisher Ludhiana
- Nickell, P. and Dorsey, J.M. (1970). Management of Family Living. Wiley Eastern, New Delhi
- Vargeese, M.N. Ogale, N.N. and Srinivasan, K. (1992). Home Management, Wiley Eastern, New Delhi.
- Krishna Oberoi (2006). Resource Management for Better Homes. R.K. Offset, Delhi.
- Bhargava, Bela. (2005). Family Resource Management and Interior Decoration. Apple Printer and V. R. Printers, Jaipur.
- Steidle, Roze and Bratton. (1968). Work in the Home. John Wiley and Sons Inc. New York
- Gandotra, G., Oberoi, K. and Sharma, P. (2008). Appropriate technology for rural women.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature- study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-II
Undergraduate Certificate in Home Science

DISCIPLINE SPECIFIC COURSE (DSC-6)- Communication and Instructional Technology

No. of Hours-120

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisiteof the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-6 Communication and Instructional Technology	4	0	0	4	Passed class XII with Science, Arts and Commerce	Nil

UNDERGRADUATE CERTIFICATE IN HOME SCIENCE		
Programme/Class: Certificate in Home Science	**Year: First**	**Semester: Second Paper: DSC-6**
Subject: Home Science		
Course: DSC-6	**Course Title: Communication and Instructional Technology**	

Course outcomes: The student at the completion of the course will be able to:

- To develop understanding of communication process.
- To develop understanding about different types of audio visual aids.

Credits: 4	**Discipline Specific Course**
Max. Marks: As per Univ. rule	**Min. Passing Marks: As per Univ. rules**

Unit	Topics	No. of Hours
	Practical	
Unit I	Communication-meaning, function and barriers. Elements of communication process. Audio-visual aids -meaning, classification, advantages and limitations Preparation and use of instructional media: • Charts, Posters, Flash cards, Graphs, Models, leaflets and use of Bulletin board	40
Unit II	Demonstration as an instructional technology	20
Unit III	Organizing and participating in various types of group discussions	20
Unit IV	Preparation of radio talk scripts on various topics	20

Unit V	Visit to communication centre, Familiarization of radio, T.V and video equipments and programme production.	20

Recommended Readings:

- Adivi Reddy.A, Extension Education, seventh edition, Sri lakshmi Press,Bapatla
- Agarwal J.C. 2007 Textbook on Essentials of Educational Technology Innovations in Teaching –Learning, second edition, Vikas Publishing House Pvt Ltd.
- Sumita Roy, Tej Verma and Pushpa Gupta 2006 textbook on family approach in extension programme management,first edition, Indian council of agricultural research Newdelhi.
- Dahama O.P. and Bhatnagar O.P, Education and Communication Development, second edition, oxford and IBH publishing pvt. Ltd,calcutta.
- Ray GL (1996) Extension Communication and Management, Naya Prakash Publications, Calcutta.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-II

Undergraduate Certificate in Home Science

GENERIC ELECTIVE (GE-2)- Computer Application

No. of Hours-30+60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
GE-2 Computer Application	4	2	0	2	Passed class XII with Science, Arts and Commerce	Nil

UNDERGRADUATE CERTIFICATE IN HOME SCIENCE		
Programme/Class: Certificatein Home Science	Year: First	Semester: Second Paper: GE-2
Subject: Home science		
Course: GE-2	Course Title: Computer Application	

Course outcomes:

The Student at the completion of the course will be able to:

- To know about the basic knowledge about the computer.
- Students will be able to understand about the internet use and E-mail.

Credits: 4	General Elective
Max. Marks: As per Univ. rule	**Min. Passing Marks:** As per Univ. rules

Unit	Topics	No. of Hours
Unit I	Basics of Computers: Definition of a Computer, Characteristics of computers Components of a computer system- Block diagrams, Central Processing Units, Input/ Output Devices, Keyboard Shortcuts, Computer Memory (primary, auxiliary and cache memory) MS Windows – Desktop, Recycle bin, My Computer, Documents, Pictures, Music, Videos, Task Bar, Control Panel.	5
Unit II	Operating Computer using GUI Based Operating System: What is an Operating System, The User Interface, Using Mouse, Using right Button of the Mouse and Moving Icons on the screen, Use of Common Icons, Status Bar, Using Menu and Menu-selection, Viewing/ Finding locations of File, and Folders, Creating and Renaming of files and folders,	5

	Opening and closing of different Windows, Using help, Creating Short cuts.	
Unit III	MS-Word: Features of MS-Word - MS-Word Window Components- Creating, Editing, Formatting and Printing of Documents, Headers and Footers, Insert/Draw Tables, Page Borders and Shading, Inserting Symbols, Shapes, Word Art, Page Numbers, Mail Merge.	10
Unit IV	MS-Excel: Overview of Excel features – Creating a new worksheet, Selecting cells, Entering and editing Text, Numbers, Inserting Rows/Columns, Changing column widths and row heights, Formulae, Referencing cells, Changing font sizes and colors, Insertion of Charts, Auto fill, Sort.	5
Unit V	MS-PowerPoint: Features of PowerPoint – Creating a Presentation, Inserting and Deleting Slides in a Presentation, Adding Clip Art/Pictures, Inserting Other Objects (Audio, Video), Resizing and scaling of an Object, Slide Transition, Custom Animation	5
	Practical	
Unit I	Interaction with personal computer components: Processor, motherboard, storage devices, multimedia components and scanners	10
Unit II	Electronic documentation through MS word: Opening/creating file, saving file, document preparation, editing, formatting, page layout, spell and grammar check. Inserting: header/footer, table, text box, picture and object. Hyperlinking. Security: Password.	10
Unit III	Creating presentation through Power Point: slide layout, design, template and background. Inserting movies and sound. Inserting picture. Slide show: transition and animation.	10
Unit IV	MS Excel basics, work book and work sheet, cell formatting. Data entry in work sheet. Chart wizard: title, axes, gridlines, legends, date label. Analyzing data: Correlation, Standard deviation, F-test, t-test. Improving data	10
Unit V	Using Outlook Express for e-mail uses: mail message, import/export, send/receive, updating address book. Setup e-mail accounts, setup multiple profiles	10
Unit VI	Internet basics. Configuring TCP/IIP. Web addresses (URLs), using web browsers Netscape/Internet explorer for web surfing. Using search Engines for knowledge bases.	10

Recommended Readings:

- Microsoft office user‟s guide.
- Introduction to computer science. ITL Group, Pearson Edition.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature- study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus• Test with multiple choice questions/ short and long answer questions• Attendance

Semester-III Undergraduate Diploma in Home Science
DISCIPLINE SPECIFIC COURSE (DSC-7)- Food Processing and storage
No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-7 Food Processing and storage	4	4	0	0	Passed class XII with science, Arts and commerce	Nil

Programme/Class: Diploma in Home Science	Year: Second	Semester: Third
Course Code: DSC-7	Course Title: Food Processing and Storage (Theory)	

Course outcomes:
The Student at the completion of the course will be able to:

- Applythe principles and methods involved in the processing of different foods.
- Know the basic knowledge about the damage caused by storage condition and control measures to overcome them.

Credits: 4	Discipline Specific Course
Max. Marks: As per Univ. rules	**Min. Passing marks:** As per Univ. rules

Unit	Topics	No. of Lectures
I	**Food Processing**: • Introduction • Role • Importance • Principles	10
II	**Different processing methods of foods-** • Pounding, • Milling, • Puffing, • Cooking, • Parboiling, • Fermentation, • Sprouting • Malting.	10
III	Processing of milk products and their effect on nutritional quality characteristics.	5

IV	Processing of oilseeds for extraction of oils and use of oilseed cakes in human nutrition.	5
V	**Food Preservation-** • Definition • Objectives • Principles of food preservation • Methods of food preservation	10
VI	**Storage of Foods** • Classification of food based on perishability • Definition, importance and functions of food storage • Food losses and damages during storage- storage losses and types of storage losses • Types/ causes of damage • Control measures during storage of grain- Traditional methods and Chemical methods	10
VII	**Visit to Food Processing Industry**	10

Suggested Readings:

1. Sivasankar, B. (2014). Food processing and preservation: Hall of India Pvt., New Delhi.
2. Fellows, P. J. (2009). Food processing Technology: Principles and Practice: Woodhead Publishing.
3. Brennan, J. G. (2006). Food Processing Handbook: Weinheim: Wiley-VCH.
4. Zeuthen, P. &Bogh- Sprensen, L. (2003). Food Preservation Techniques: CRC Press, Boca raton.
5. Vonloesecka, H. W. (1998). Drying and Dehydration of Foods: Allied, Bikaner.
6. B. Srilakshmi, Food science, New Age Publishers,2002
7. Meyer, Food Chemistry, New Age,2004

Suggested Digital Platform:

https://onlinecourses.nptel.ac.in/noc22_ag03/preview

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-III Undergraduate Diploma in Home Science

DISCIPLINE SPECIFIC COURSE (DSC-8)- Indian Embroidery and Traditional Textile

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-8 Indian Embroidery and Traditional Textiles	4	4	0	0	Passed class XII with Science, Arts and Commerce	Nil
Programme/Class: Diploma in Home Science		Year: Second			Semester: Third	
Course Code: DSC-8		Course Title: Indian Embroidery and Traditional Textile				

Course outcomes:

The Student at the completion of the course will be able to:

- To impart knowledge about traditional woven textiles and embroidery of India.
- To introduce student with the creative art of embroidery.

Credits: 4	Discipline Specific Course
Max. Marks: As per Univ. rules	**Min. Passing marks:** As per Univ. rules

Unit	Topics	No. of hours
I	**Traditional woven textiles of India:** • Hand woven Sarees: Dacca muslin and Jamdani saree, Baluchar sarees, Pochampalli sarees, Patola and Ikat sarees, Kanchipuram sarees, Chanderi sarees, Maheswari sarees, Vichitrapuri sarees and Brocades, Hand woven shawls of Kashmir, Himachal Pradesh and North Eastern states.	10
II	**Printed and Painted textiles:** • Printed Textiles: Block printed textiles, Tie and dyed textiles • Painted Textiles: Kalamkari and Madhubani	10
III	**Embroideries of states of India:** • Kashida of Kashmir, • Chamba Rumal, • Phulkari and Bagh of Punjab, • Embroideries of Gujarat, • Chikankari and Zari work of Uttar Pradesh, • Kanthas of Bengal,	10

	• Manipuri Embroidery, • Kasuti of Karnataka, • Embroidery and Patchwork of Bihar	
IV	**Traditional costumes of India:** • Kashmir, Punjab, Uttar Pradesh, West Bengal, • NE states, • Rajasthan, Gujarat, Maharashtra, • South Indian states	10
V	Importance of traditional costumes and textiles and apparel industry, Impact of adaptation of traditional motifs and designs for modern textiles	5
VI	Factors affecting diversity of textiles and costumes of India: Geographical factors, socio-economic factors, customs and traditions and religious factors	5
VII	Visit to Traditional Embroidery Unit	10

Suggested Readings:

1. Crill, R. (1999). Indian Embroidery. London: Victoria and AlbertMuseum
2. Chattopadhyay, K. 1985. The Gloryof Indian Handicraft. New Delhi. Calrian book.
3. Flynnn,D. 1971. Costumes of India. New Delhi, Oxford and IBH Publishing Company.
4. Fabin, C. 1977. Indian Dress. New Delhi, Orient Longman L
5. Pandit, S.1976. Indian Embroidery: its variegated charms. Baroda.
6. Synge, L. (2005). Art of Embroidery: Historyof style and Technique. New York: ACC Art Book
7. Shailaja D. Naik. 1996. Traditional Embroideries of India. APH publishing.

Suggested Digital Platform:

https://textilevaluechain.in/in-depth-analysis/articles/traditional-textiles/traditional-indian-embroidery/ https://www.slideshare.net/hemaupadhayay/traditional-embroideries-of-india-76836145

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-III Undergraduate Diploma in Home Science
DISCIPLINE SPECIFIC COURSE (DSC-9)- Practical based on DSC-7 and DSC-8

No. of Hours- 120

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-9 Practical based on DSC-7 and DSC-8	4	0	0	4	Passed class XII with Science, Arts and Commerce	Nil

UNDERGRADUATEDIPLOMAINHOME SCIENCE		
Programme/Class: Diploma in Home Science	**Year: Second**	**Semester: Third** **Paper: DSC-9**
Subject: Home science		
Course: DSC-9	Course Title: **Practical based on DSC-7 and DSC-8**	

Course outcomes:

The Student at the completion of the course will be able to:

- Apply the principles and methods involved in the processing of different foods.
- ToimpartknowledgeabouttraditionalwoventextilesandembroideryofIndia
- To introduce student with the creative art of embroidery

Credits:4	Discipline Specific Course
Max. Marks: As per Univ. rule	**Min. Passing Marks:** As per Univ. rules

Unit	Topics	No. of hours
Unit I	Preparation of popped corn and sorghum.	12
Unit II	Dehydration and drying of vegetables: green leafy vegetables, tubers and others.	8
Unit III	Preparation and bottling of tomato sauce.	8
Unit IV	Preparation and bottling of fruit jam, squash and jellies.	12
Unit V	Preparation of fermented food-*dhokla, idli.*	12
Unit VI	Preparation of wheat malt.	8
Unit VII	Sample preparation of traditional Indian embroideries and Machine embroideries	20
Unit VIII	Preparation of two articles using different hand embroideries	20
Unit IX	Documentation of Indian textiles and costumes	20

Recommended Readings:

- Desroiser N. W. & Desroiser J. N. 1977. The Technology of Food Preservation. AVI Publication.
- PottyV. H. and Mulky M. J. 1993. Food Processing. Oxford & IBH Publishing House.
- Srilakshmi B. 2001. Food Science. New Age International.
- Crill, R.(1999).Indian Embroidery. London: Victoriaand Albert Museum
- Synge, L. (2005). Art of Embroidery: History of style and Technique. New York: ACC Art Book
- ShailajaD.Naik.1996. APH publishing. Traditional Embroideries of India.
- JohnGillow.1991.IndianTextiles.

Suggested equivalentonline courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature- study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-III Undergraduate Diploma in Home Science
DISCIPLINESPECIFICELECTIVE (DSE-1)-Ergonomic Design
No. of Hours-30+60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSE-1 Ergonomic Design	4	2	0	2	Passed class XII with Science, Arts and Commerce	Nil

UNDERGRADUATEDIPLOMAINHOME SCIENCE

Programme/Class: Diploma in Home Science	Year: Second	Semester: Third Paper: DSE-1
Subject: Home Science		
Course: DSE-1	**Course Title: Ergonomic Design**	

Course outcomes: The Student at the completion of the course will be able to:

- To sensitize students to the importance of ergonomics in design.
- To develop aptitude in identifying the product/space design problems at place of work.
- To understand interface of human element and the user‟s perspective in the evolution of product / space design.
- To develop skill in designing specific work-centres and products.

Credits:4	Discipline Specific Elective
Max. Marks: As per Univ. Rule	**Min. Passing Marks:** As per Univ. rules

Unit	Topics	No. of Hours
Unit I	**Ergonomics** – concept, significance, history and growth Applications of Ergonomics in design and work efficiency Anthropometric Measurements –History and its application in interior designing for different work areas and workers. The bio- mechanisms of work as related to the user, the work and the environment	10
Unit II	**The User:** Components of worker input – affective, cognitive, temporal and physical (physical, physiological, psycho- Physiological aspects of work.	10
Unit III	**Work Environment** Functional design and arrangement of work places. Indices of indoor comfort: ventilation, lighting, temperature, noise Work study Time and motion study Energy Studies	10
	Practical	
Unit I	Basic anthropometry– space norms/ standards	20
Unit II	Time and motion study.	20
Unit III	Designing products–furniture (multipurpose and modular, etc.).Space design–preparing floor and elevation plans- Kitchen, Workstation	20

Recommended Readings:

- Bridger. R.S., "Introduction to Ergonomics."Mc. Graw HallInc, New York, 1995.
- Chiara J.D., Panero. J., Zelnik M., "Time Saver standards for Interior Design and Space Planning", McGraw Hill, Neuferts Architect"s Data, 1992.
- Lakhwinder Pal Singh, "Work Study and Ergonomics."Cambridge University Press, Noida, 2016.
- Mark.S.SandersandErnest.J.Mc.Cormick,"HumanFactorsinEngineeringand Design." Mc. GrawHallInc, New York, 1992.
- PheasantS,"Anthropometry,ergonomicsandDesignofwork",TaylorandFrancis, London, 2003.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-III Undergraduate Diploma in Home Science

Generic Elective (GE-3)- Life Span Development

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
GE-3 Life Span Development	4	4	0	0	Passed class XII with science, Arts and commerce	Nil

UNDERGRADUATE DIPLOMA IN HOME SCIENCE		
Programme/Class: Diploma in Home Science	**Year: Second**	**Semester: Third** **Paper: GE-3**
Subject: Home Science		
Course: GE-3	**Course Title: Life Span Development**	

Course outcomes: The Student at the completion of the course will be able to:

- Learn about different stages of human development through life.
- Learn about factors that affect different developmental stages

Credits: 4	**General Elective**
Max. Marks: As per Univ. Rule	**Min. Passing Marks:** As per Univ. rules

Unit	Topics	No. of Hours
Unit I	**Prenatal development stages:** Genetic and environmental influences on prenatal development	5
Unit II	**Neonate** (neonate up to 4 weeks): physical, sensory, cognitive and social development. **Infancy** (Four weeks up to 2 years): physical and motor, social and emotional, cognitive and language development	10
Unit III	**Early childhood years(2-6 years):** physical and motor, social, emotional, cognitive and language development.	5
Unit IV	**Middle childhood:** • Physical and motor development	10
	• Language and intellectual development • Emotional development; • Social and moral development	
Unit V	**Adolescence:** • Characteristics of adolescence • Physical, social, cognitive and emotional development • Issues in adolescence, identity crisis	10
Unit VI	**Adulthood:** • Characteristics of adulthood • Physical, intellectual, cognitive and personality development	10

Unit VII	**Old age:** • Characteristics of old age • Biological, physical and social changes in old age • Attitudes towards life and death among the elderly. Special needs of elderly, status of aged in India	10

Recommended Readings:

- Hurlock E.B. (1980), *Developmental Psychology, A Life span Approach,* 5 th edition, New Delhi: Tata Mc. Graw Hill Publishing company Ltd.
- Rice. F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice Hall.
- Rutter, M. and Rutter, M. (1992) Developing Minds. Challenge and continuity across the life span. London: Penguin.
- 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 BlackSwan.
- Tennant, M. and Pogson, P. (1995) Learing and Change in the Adult Year,San Francisco: Jossey-Bass

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study- online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-IV Undergraduate Diploma in Home Science
DISCIPLINE SPECIFIC COURSE (DSC-10)- Introductory Textile Science
No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-10 Introductory Textile Science	4	4	0	0	Passed class XII with science, Arts and commerce	Nil

UNDERGRADUATE DIPLOMA IN HOME SCIENCE

Programme/Class: Diploma in Home Science	**Year: Second**	**Semester: Fourth Paper: DSC-10**
Subject: Home Science		
Course: DSC-10	**Course Title: Introductory Textile Science**	

Course outcomes: The Student at the completion of the course will be able to:

- To understand basic knowledge about the textiles fibers, yarns and fabric.
- To educate students about the use of laundering process and its equipment as well as the cleansing agents.

Credits: 4	**DISCIPLINE SPECIFIC COURSE**
Max. Marks: As per Univ. Rule	**Min. Passing Marks: As per Univ. rules**

Unit	Topics	No. of Hours
Unit I	Introduction, terminology and classification of textile fibers	5
Unit II	Natural fibers: Cotton, flax, jute, hemp, ramie, silk, wool, specialty hair fibers and asbestos	5
Unit III	Manmade fibers: Rayon, acetate, nylon, polyester, acrylic, glass fibers	8
Unit IV	Yarn classification; characteristics and their use	8

Unit VII	Labels and tags used in textiles and consumer education	8
Unit VIII	Laundry equipment; their use and care, principles and methods of washing and finishing	6
Unit IX	Cleansing agents: water, detergents, soaps and other laundry reagents- acidic, alkaline reagents and bleaching agents	5
Unit X	Additives used in laundry: stiffening and blueing agents	5
Unit XI	Visit to Textile Industry	10

Recommended Readings:

- Vastala. R (2003), Text book of Textiles & Clothing, ICAR, New Delhi
- Andrea Wynne 1997. Textiles. Macmillian.
- Hollen N & Saddler (1993) Textiles, New York, John Wiley.
- Bernard P Corbman 1983. Textiles - Fiber to Fabric. McGraw-Hill.
- Marjory L. Joseph 1966. Introductory Textile Science. Rinehart & Winston.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature- study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-IV Undergraduate Diploma in Home Science
DICIPLINE SPECIFIC COURSE (DSC-11)- Fundamentals of Baking

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-11 Fundamentals of Baking	4	4	0	0	Passed class XII with science, Arts and commerce	Nil

UNDERGRADUATE DIPLOMA IN HOME SCIENCE

Programme/Class: Diploma in Home Science	Year: Second	Semester: Fourth Paper: DSC- 11
Subject: Home Science		
Course: DSC-11		**Course Title: Fundamentals of Baking**

Course Outcomes: At the end of the term / course the Students will be able to:

- Explain the different ingredients used in bakery
- Explain the different working temperatures for bakery products
- Define the bread faults and remedies of bakery products
- Draw and explain the layout of a bakery
- Write recipes of different breads, pastries and gateaux

Credits: 4	GENERAL ELECTIVE
Max. Marks: As per Univ. Rule	**Min. Passing Marks:** As per Univ. rules

Units	Topic	No. of Hours
Units I	**Introduction** Scope of Bakery, Bakery terms, Organization chart of Bakery	10
Units II	**Wheat and Flour** Different types of flours available, Constituents of flours, pH Value of flour, Water absorption power of flour, Gluten, Grade of flour.	10
Units III	**Raw material required for bread making** Role of flour, water, yeast, salt - Sugar, milk and fats **Characteristics of good bread** External characteristics-Volume, symmetry of shape; Internal characteristics - color, texture, aroma, clarity and elasticity	10

Units IV	**Bakery Products** Production of cakes and cookies/biscuits. Types of biscuit dough,,s –Developed dough, short dough,,s and batters. Cake making: Ingredients and their function Structure builders. Shortening and leavening agents, Tenderizers, moisteners and flavor enhancers. Problems of baking.	10
Units V	**Yeast** An elementary knowledge of Baker‟s yeast, fermentation of dough and conditions influencing it‟s working.	5
Units VI	**Oven & Baking** Knowledge and working of various types of oven. Baking temperatures for bread, confectionery goods.	5
Unit VII	Visit to Baking Food Industry	10

Recommended Readings:

- Neelam Khetarpaul, Bakery Science and Cereal Technology.
- N. Shakuntala Manay, Food Facts and Principles.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-IV Undergraduate Diploma in Home Science

Discipline Specific Course (DSC-12)- Practical based on DSC-10 & DSC-11

No. of Hours-120

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OFTHE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-12 Introductory Textile Science and Fundamental of Baking	4	0	0	4	Passed class XII with science, Arts and commerce	Nil

UNDERGRADUATE DIPLOMA IN HOME SCIENCE

Programme/Class: Diploma in Home Science	**Year: Second**	**Semester: Fourth** **Paper: DSC-12**
Subject: Home Science		
Course: DSC-12	**Course Title: Introductory Textile Science and Fundamental of Baking**	

Course outcomes: The Student at the completion of the course will be able to:

- To understand basic knowledge about the textiles fibers, yarns and fabric.
- To educate students about the use of laundering process and its equipments as well as the cleansing agents.
- Draw and explain the layout of a bakery
- Explain the different working temperatures for bakery products

Credits: 4	**DISCIPLINE SPECIFIC COURSE**
Max. Marks: As per Univ. Rule	**Min. Passing Marks: As per Univ. rules**

Unit	Practical	No. of Hours
Unit I	Identification of fibers: visual inspection, burning, microscopic and solubility tests	10
Unit II	Study and identification of common fabrics available in the market and thread count	10
Unit III	Removal of common stains from fabrics	12

Unit IV	Demonstration of laundry equipment	10
Unit V	Washing, ironing and finishing of textile articles: cotton, silk, wool, synthetic/blend, zari embroidery and lace articles	16
Unit VI	Visit to Processing unit/ Textile mill	8
Unit VII	Introduction to ingredients / Equipment used in Bakery: Identification and uses of equipment – large, small and other utilities. Ingredients – Types of flour, Sugar, Nuts and Dry fruits, Shortenings, Leavening	10
Unit VIII	Quality Checking & Basic Mixing Methods Flour: W.A.P Test, Gluten Content Yeast : Flying fermentation	10
Unit IX	Mixing Methods Basic steps involved in mixing ingredients –Kneading, stirring, whipping, creaming.	10
Unit X	Flavored Breads and Biscuits Flavored Breads, Cakes, Muffins, Biscuits, Basic Buns, Fruit Buns	14
Unit XI	Visit to a Baking Unit	10

Recommended Readings:

- Vastala. R (2003), Text book of Textiles & Clothing, ICAR, New Delhi
- Andrea Wynne 1997. Textiles. Macmillian.
- Hollen N & Saddler (1993) Textiles, New York, John Wiley.
- Bernard P Corbman 1983. Textiles - Fiber to Fabric. McGraw-Hill.
- Marjory L. Joseph 1966. Introductory Textile Science. Rinehart & Winston.
- Neelam Khetarpaul, Bakery Science and Cereal Technology.
- N. Shakuntala Manay, Food Facts and Principles.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-IV Undergraduate Diploma in Home Science
Discipline Specific Elective (DSE-2)- Community Nutrition

No. of Hours-30+60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSE-2 Community Nutrition	4	2	0	2	Passed class XII with science, Arts and commerce	Nil

UNDERGRADUATE DIPLOMA IN HOME SCIENCE		
Programme/Class: Diploma in Home Science	Year: Second	Semester: Fourth Paper: DSE-2
Subject: Home science		
Course: DSE-2	Course Title: Community Nutrition	

Course outcomes: The Student at the completion of the course will be able to:

- To provide information regarding nutritional assessment.
- To enable students to impart nutrition education among rural and needy people.
- To acquaint them knowledge regarding food security and government and international program running in the field of community nutrition.

Credits: 4	DISCIPLINE SPECIFIC ELECTIVE
Max. Marks: As per Univ. Rule	Min. Passing Marks: As per Univ. rules

Unit	Topics	No. of Hours
Unit I	Role of nutrition education programme in eradication of malnutrition: improving amount and variety of food supplies, improving family income and its influence on nutritional status, improving food consumption to meet individual needs in the family, improving environmental hygiene.	3
Unit II	Planning, implementation and evaluation of a nutrition education programme.	2
Unit III	Assessment of nutritional knowledge by informal discussion and by simple questionnaire and rapid rural appraisal.	3
Unit IV	Introduction to national nutrition programmes and policies programmes for improving nutritional status at national level, ICDS, NRDP, NREP, miscellaneous monofocal programmes.	2
Unit V	Role of international agencies and programmes in community nutrition, FAO, WHO, UNICEF; other voluntary and government agencies.	5
Unit VI	Food production systems in India; Their influence on food supply; major foods and their statewise production in India.	5
Unit VII	Food distribution system: Public Distribution System, Food Corporation of India, intra household distribution and per capita availability of food.	5

Unit VIII	Magnitude of nutrition problem in India: PEM, vitamin A deficiency, endemic goiter, flourosis and lathyrism, strategies for control of malnutrition	5
	PRACTICALS	
Unit I	Identifying nutritional problems in a community.	10
Unit II	Formulation of nutrition and health related messages for presentation to the community through radio script, popular article, charts/posters; leaflets, games.	20
Unit III	Organization of a campaign in the community through prepared nutrition education media.	10
Unit IV	Evaluation of the programme in the community.	10
Unit V	Visit to an ICDS block/ongoing project site where nutrition education is a part of programme.	10

Recommended Readings:

- Bamji,M.S Rao, NP and ReddyV. 1996.Text book of Human Nutrition
- Bagchi,K. 1990. Guidelines for the management of nutrition programmes- a manual for nutrition officers.WHO EMRO Technical Publication no. 15, WHO,Geneva
- Bendich, A and Deckelbaum,RJ, 1997. Preventive Nutrition.The Comprehensive guide for health professional.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-IV Undergraduate Diploma in Home Science

GENERIC ELECTIVE (GE-4)- Family Financial Management and Consumer Economics

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
GE-4 Family Financial Management and Consumer Economics	4	4	0	0	Passed class XII with science, Arts and commerce	Nil

UNDERGRADUATE DIPLOMA IN HOME SCIENCE

Programme/Class: Diploma in Home Science	Year: Second	Semester: Fourth Paper: GE-4
Subject: Home science		
Course: GE-4	**Course Title: Family Financial Management and Consumer Economics**	

Course outcomes:

The Student at the completion of the course will be able to:

- To learn the basic of financial management which have an impact on family consumption patterns?
- To educate the students to become good consumers.

Credits: 4	DISCIPLINE SPECIFIC ELECTIVE
Max. Marks: As per Univ. Rule	**Min. Passing Marks:** As per Univ. rules

Unit	Topics	No. of Hours
Unit I	**Family Finance:** Meaning, Definition and importance of family finance, guidelines for family financial management. **Family income:** Income concepts: productive income, hidden income, money income, real income, psychic income, Analyzing income: income profile, methods of handling income, account keeping	10

Unit II	**Family budget and saving:** Steps of budget making, factors influence on budget making, advantages of budget making, and Engel‟s law of consumption, controlling and evaluation of budget. Savings and Investment- types of savings / investment, saving institution and its importance.	8
Unit III	Credit- Meaning, Definition, Needs, Types, use and source of credit Taxation- objectives, characteristics and classification.	8
Unit IV	• Meaning of consumer, Basic concepts of consumer economics: Goods, wealth, economic and non-economic activities, utility, Value and price, Consumer problems. • Consumer education: Meaning, Definition, Objectives and need of in India. • Consumer rights and responsibilities in today‟s world.	8
Unit V	• Consumer decision making • Determinants of consumer choices • Market and merchandising – types of market, definition and Structure and functioning of consumer retail markets • Pricing process	8
Unit VI	**Consumerism and consumer protection** a) History of consumer movement in the developed and developing countries b) Consumer protection and Govt. legislation-Act and orders c) Govt. and NGO for consumer protection and welfare	8
Unit-VII	Visit to financial Institutions and Consumer Organizations	10

Recommended Readings:

- Maneesha Shukul and VeenaGandotra. (2006). Home Management and Family Finance. Dominant Publishers and Distributors, New Delhi.
- Mann, M.K. (2004) Home Management for Indian Families. Kalyani Publishers, New Delhi.
- Rice, Nickel and Tucker. (1976). Management in Family Finance. John Wiley and Sons., New York
- Seetharaman P. Sethi M. (2002). Consumerism Strategies and Tactics. CBS Publishers and Distributors. New Delhi.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-V
Bachelor in Home Science (Honours)

Discipline Specific Course (DSC-13) Therapeutic Nutrition and Diet Counseling

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-13 Therapeutic Nutrition and Diet Counselling	4	4	0	0	Passed class XII with science, Arts and commerce	Nil

Bachelor in Home Science (Honours)		
Programme/Class: Bachelor in Home Science (Honours)	Year: Third	Semester: Fifth Paper: DSC- 13
Subject: Home Science		
Course- DSC-13	Course Title: Therapeutic Nutrition and Diet Counselling	
Credits: 4	DISCIPLINE SPECIFIC COURSE	
Max. Marks: As per Univ. Rule	**Min. Passing Marks:** As per Univ. rules	

Unit	Topics	No. of Hours
Unit I	**Introduction:** • Nutrition and immunity • Catabolic effects of infections. • Effect of illness on food acceptance and utilization • Types of feeding. • Use of food exchange list in diet planning.	10
Unit II	**Fever:** • Metabolic alteration • Types of fever • Dietary management of short (typhoid) and long duration fever (tuberculosis)	10

Unit III	**Principles of dietetic management of disorders of the gastrointestinal tract –** • Gastritis • Peptic ulcer • Diarrhea • Constipation. • Ulcerative colitis • Regional enteritis	10
Unit IV	**Etiology, symptoms, metabolic alterations and nutritional management of liver disease-** • Hepatitis • Cirrhosis	5
Unit V	**Diabetes mellitus:** • Clinical characteristics, • risk factors, • dietary management • Complications	5
Unit VI	**Risk factors, metabolic anomalies and principles of nutritional management in-** • Hypertension • hyperlipidemias, • atherosclerosis	8
Unit V	**Nutritional considerations in weight management-** 1) **Obesity:** • Etiology • Energy balance • Metabolic changes • Dietary management 2) **Underweight** • Etiology • Metabolic changes • Dietary management	8
Unit VI	**Principles of nutritional therapy in diseases of the kidney-** • Glomerulonephritis, • Renal failure • Renal calculi.	2
Unit VII	**Visit to Hospital**	2

Recommended Readings

- Antia F.P. (1989). Clinical Dietetics and Nutrition. Third Edition. (pp- 226-239), Bombay, Oxford University Press.
- Bamji . S.M., Rao,P.N., and Reddy, V. Textbook of Human Nutrition. Pp-360-67. Oxford and IBH publishing Co Pvt Ltd.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study- online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-V
Bachelor in Home Science (Honours)
Discipline Specific Course (DSC-14)-
Fabric Formation and Finishes

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-14 Fabric Formation and Finishes	4	4	0	0	Passed class XII with science, Arts and commerce	Nil

Bachelor in Home Science (Honours)		
Programme/Class: Bachelor in Home Science	**Year: Third**	**Semester: Fifth** **Paper: DSC-14**
Course Code: DSC-14	**Course Title: Fabric Formation and Finishes**	

Course outcomes:
The Student at the completion of the course will be able to:

- To study the chemicals used in textile processing from sizing to finishing, along with the essential properties of raw materials used in their manufacture and study the recent developments in various finishing processes.

Credits: 4	**DISCIPLINE SPECIFIC COURSE**
Max. Marks: As per Univ. Rule	**Min. Passing Marks:** As per Univ. rules

Unit	Topics	No. of Hours
Unit I	**Method of fabric formation:** • Weaving • Knitting • Non-woven	15
Unit II	**Looms:** Shuttle looms, shuttle less looms, gripper loom, rapier loom, water jet and air jet loom	15
Unit III	**Introduction to fabric finishes** a) Processes of removing impurities from fabrics: scouring, degumming, carbonizing	15

	b) Basic finishes that alter hand or texture; felting, singeing, stiffening, decatazing c) Surface finishes: Bleaching, delustering, calendaring, beetling, napping, flocking, burnt out design, plisse design, acid design, tenetring, shearing and brushing d) Functional finishes: water proof and water repellent finish, soil repellent finish, shrinkage control, wrinkle resistance, durable press finish, flame retardant finish, mildew proof, rot proof, moth proof finishes, antistatic and antibacterial finishes	
Unit IV	**Adding colour to textiles** • Natural dyes • Syntheticdyes	15

Recommended Readings:

- Banerjee, P.K. Principles of Fabric Formation 2014.1st Edition19 December 2014. ISBN-13: 978-1466554443 ISBN-10: 1466554444.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester- V
Bachelor in Home Science (Honours)
DISCIPLINE SPECIFIC COURSE (DSC-15)- Practical based on DSC-13 and DSC-14

No. of Hours- 120

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-Requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-15 Practical based on DSC-13 and DSC-14	4	0	0	4	Passed class XII with Science, Arts and Commerce	Nil

UNDERGRADUATE DIPLOMA IN HOME SCIENCE		
Programme/Class: Bachelor in Home Science (Honours)	Year: Third	Semester: Fifth Paper: DSC-15
Subject: Home science		
Course : DSC-15	Course Title: Practical based DSC-13 and DSC-14	

Course outcomes:
The Student at the completion of the course will be able to:

- Understand the basics of normal diet, therapeutic diet related with specific disease condition.
- Students will be able to know different feeding methods used in hospitals.
- To study the chemicals used in textile processing from sizing to finishing, along with the essential properties of raw materials used in their manufacture and study the recent developments in various finishing processes.

Credits: 4	Discipline Specific Course
Max. Marks: As per Univ. rule	**Min. Passing Marks:** As per Univ. rules

Unit	Topics	No. of Hours
Unit I	Planning normal diet for patients who do not require special diets: adults, children	12
Unit II	Planning soft diet and liquid diets.	12
Unit III	Planning diet in fevers	12
Unit IV	Diet for underweight children	12
Unit V	Diet for obese	12
Unit VI	Identification of common textile fibers, yarns and fabrics	20
Unit VII	Preparation of basic weaves on cardboard	15
Unit VIII	Preparation of samples: Screen printing, Block printing, stencil printing, tie and dye and batik with different dyes	15
Unit IX	Visit to Dyeing & Printing	10

Recommended Readings:

- Antia F.P. (1989). Clinical Dietetics and Nutrition. Third Edition. (pp- 226-239), Bombay, Oxford University Press.
- Bamji . S.M., Rao,P.N., and Reddy, V. Textbook of Human Nutrition. Pp-360-67. Oxford and IBH publishing Co Pvt Ltd.
- Banerjee, P.K. Principles of Fabric Formation 2014.1st Edition19 December 2014. ISBN-13: 978-1466554443 ISBN-10: 1466554444.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature- study- online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-V
Bachelor in Home Science (Honours)
Discipline Specific Elective (DSE-3)-
Entrepreneurship Development

No. of Hours-45+30

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSE-3 Entrepreneurship Development	4	3	0	1	Passed class XII with science, Arts and commerce	Nil

Bachelor in Home Science (Honours)		
Programme/Class: Bachelor in Home Science	**Year: Third**	**Semester: Fifth** **Paper: DSE-3**
Subject: Home Science		
Course: DSE-3	**Course Title: Entrepreneurship Development**	

Course outcomes:

The student at the completion of the course will be able to:

- To learn about the importance of entrepreneurship Development and Business Management in the development of Indian economy
- Creating awareness regarding entrepreneurial traits, entrepreneurial support system,
- Opportunity identification, project report preparation and understanding of legal and managerial aspects.

Credits: 4	DISCIPLINE SPECIFIC ELECTIVE
Max. Marks: As per Univ. Rule	**Min. Passing Marks:** As per Univ. rules

Unit	Topics	No. of Hours
Unit I	**Entrepreneurship:** concepts, definition, need and significance of entrepreneurship development in India, Entrepreneur-their characteristics, types, Challenges faced by women entrepreneurs.	5

Unit II	**Business organizations:** Meaning and definitions, types of business organizations and their characteristics. **Business opportunities:** Meaning and definition, characteristics of business opportunities, sources of business opportunities, types of business opportunities and analysis of business opportunities. **Business environment:** Meaning and definition of business environment, factors affecting business environment, importance of business environment analysis.	10
Unit III	**Steps involved in functioning of an enterprise**: Selection of the product / services, selection of form of ownership; registration, selection of site, capital sources, legal requirement for starting an enterprise.	10
Unit IV	**EDP:** Entrepreneurship development program, types of EDPs, role of financial institutions, and other Agencies in entrepreneurship development.	10
Unit V	Enterprise management, Basic management concepts, personnel management, product management, material management, financial management, market management and crises management. natural etc.	10
	Practical	
I	Assessment of entrepreneurial traits Thematic Appreciation Test (TAT); Who am I? Paired comparison Test (PCT) Sentence Completion Test (SCT) Risk Taking Behavior (Ring Toss)	5
II	Interaction with successful entrepreneurs	10
III	Visit to financial institutions and support agencies	5
IV	Preparation of project proposal for funding by different agencies	10

Recommended Readings:

- Bhawal, C. P. 2005. Entrepreneurship and Entrepreneurial Development. New Royal Company, Lucknow
- . Vasant Desai. (2011). Entrepreneurial Development Potential beyond Boundaries; Himalaya PublishingHouse.
- Gundry Lisa K. &Kickul Jill R.,2007, Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth, and Reinvention, SAGE Publications,Inc.
- Taneja& Gupta, 2001, Entrepreneur Development- New Venture Creation, Galgotia Publishing Company.

Suggested Continuous Evaluation Methods: Since the class is conceived as learner-centric and built around tasks that require learners to actively use various language skills, formative Assessment can and should be used extensively. Oral presentations, peer interviews, and group tasks can be used for this purpose. The end-semester written examination will test all the areas targeted in the course.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Semester-V
Bachelor in Home Science (Honours)

GENERIC ELECTIVE (GE-5)- Population and Family Life Education

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre- requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
GE-5 Population and Family Life Education	4	4	0	0	Passed class XII with science, Arts and commerce	Nil

Bachelor in Home Science (Honours)		
Programme/Class: Bachelor in Home Science	**Year: Third**	**Semester: Fifth Paper: GE-5**
Subject: Home Science		
Course: GE-5	**Course Title: Population and Family Life Education**	

Course outcomes:
The Student at the completion of the course will be able to:
- To understand the perspective of population and its measures, growth and development.
- To provide knowledge about the family life education in students.

Credits: 4	**DISCIPLINE SPECIFIC COURSE**
Max. Marks: As per Univ. Rule	**Min. Passing Marks: As per Univ. rules**

Unit	Topics	No. of Hours
Unit I	Population in perspective, theories of population education, Growth of world population, population of India, India‟s population problem in perspective, socio-cultural aspects of population growth in India. Population policy in India	15
Unit II	Measures of population composition and growth of population a) Measures of mortality and life table	10
	b) Measures of fertility and reproduction	
Unit IV	Population education, Meaning of population education, need and importance of population education	10

Unit V	Family life education a) Conception, pregnancy and pre-natal development process of conception, determination of sex techniques, fertilization techniques: amniocentesis, sonography, gift, I.V.F. and A.I., pregnancy and its management. b) Planning family: family planning and contraceptive technology, planned parenthood- spacing between children, size of family.	15
Unit VI	Visit to a hospital	10

Recommended Readings:

- Nye.F.I., & Berardo. F.M. (1973). The family its structure and Interaction. New York: Mac. Millan Company
- Arcus, M.E., Schvaneveldt, J.D. & Moss, J.J. (1993). *Handbook of Family Life Education: Foundations of Family Life Education*. USA : Sage Publications, Inc.
- WHO, USAID and Johns Hopkins Bloomberg School of Public Health. (2007). *Family Planning: A Global Handbook for Providers*.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-VI
Bachelor in Home Science (Honours)
DICIPLINE SPECIFIC COURSE (DSC-16)- Food Science

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-16 Food Sciene	4	4	0	0	Passed class XII with Science, Arts and Commerce	Nil

Bachelor in Home Science (Honours)		
Programme/Class: Bachelor in Home Science	**Year: Third**	**Semester: sixth Paper: DSC- 16**
Subject: Home Science		
Course- DSC-16	**Course Title: Food Science**	

Course outcomes: The Student at the completion of the course will be able to:

- To provide an understanding of composition of various foodstuffs
- Familiarize students with changes occurring in various food stuffs as a result of processing and cooking.

Credits: 4	**DISCIPLINE SPECIFIC COURSE**
Max. Marks: As per Univ. Rule	**Min. Passing Marks: As per Univ. rules**

Unit	Topics	No. of Hours
I	**Introduction to Food Science** • Properties of foods • Functions of foods • Factors affecting appearance, taste, texture, flavor, color.	4
II	**Changes during food processing and storage in –** • Fruits and vegetables; • milk and milk products; • meat and poultry; fish, eggs, • cereals and legumes; • nuts; oilseeds and spices.	5

III	**Carbohydrates-** • Functional role of sugars in foods- sweetness, texture, preservation, preservation, fermentation, appearance, maillard reaction, caramelization, freezing point, antioxidant activity, miscellaneous activity; sweetness; invert sugar.	5
IV	**Proteins-** • Functional properties of protein- hydration properties, precipitation, viscosity, gelation, texturization, dough formation, surface properties.	6
V	**Lipids-** • Functional properties of lipids- deep fat frying, deteriorative changes in fats/ oils, antioxidants	6
VI	**Food polysaccharides-** • Functional properties of starch; hydrocolloids, on-starch polysaccharides, gums.	4
VII	**Role of water in foods-** • Free water and bound water • Functional properties • Water activity • Intermediate moisture foods.	6
VIII	Sols, gel, emulsion; colloids, colloidal system, properties of solutions, foams.	4
IX	Enzymes and pigments: Biotechnological applications of enzymes; Natural pigments- sources and uses.	4
X	**Sensory evaluation-** • Importance • Sensory panel • Sample preparation • Hedonic scale	6
XI	**Visit to Milk processing unit**	10

Recommended Readings:

- Desroiser N. W. & Desroiser J. N. 1977. The Technology of Food Preservation. AVI Publication.
- Potty V. H. and Mulky M. J. 1993. Food Processing. Oxford & IBH Publishing House.
- Srilakshmi B. 2001. Food Science. New Age International.
- M. Shadakhsharaswamy and N. Shakuntala Manay. Food Facts and Principles, Mohindra Singh Sejwal for Wiley Eastern Limited, Ansari Road Daryaganj, New Delhi.
- Mudambi, S. 1997. Food Science. New Age International (P) Limited Pub.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-VI
Bachelor in Home Science (Honours)
DICIPLINE SPECIFIC COURSE (DSC-17)- Fundamentals of Housing and Interior Decoration

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-17 Fundamentals of Housing and Interior Decoration	4	4	0	0	Passed class XII with science, Arts and commerce	Nil

Bachelor in Home Science (Honours)		
Programme/Class: Bachelor in Home Science (Honours)	**Year: Third**	**Semester: Sixth Paper: DSC-17**
Subject: Home Science		
Course- DSC-17	**Course Title: Fundamentals of Housing and Interior Decoration**	

Course outcome:
The Student at the completion of the course will be able to:

1. To learn about elements and principles of art and their application in interior designing.
2. To gain better understanding of interior enrichment.

Credits: 4	**DISCIPLINE SPECIFIC COURSE**
Max. Marks: As per Univ. Rule	**Min. Passing Marks: As per Univ. rules**

Unit	Topics	No. of Hours
Unit I	**Introduction to interior planning and decoration** • Importance of interior planning and decoration • Current trends in interior decoration	5
Unit II	• Elements of design: Line, Form, Texture, Colour, Pattern, Light, Space • Objectives of interior decoration • Principles of designs: Proportion, Balance, Emphasis, Harmony, Rhythm	5
Unit III	**Colour:** • Characteristics of colour • Qualities of colour	5

	• Properties of colour • Emotional effect of colour • Colour wheel • Colour schemes • Use of colour in interior decoration • Planning of colour schemes of different areas in the house	
Unit IV	Planning for various background areas of the house and their treatment • Floor: Types of floor covering, care and maintenance and Selection of floor covering • Walls: Types of building walls, Types of wall treatments • Windows: Types of window treatment	5
Unit V	• Functional and decorative accessories for interiors, • Lighting: Importance, Types of lighting, • Flower arrangement: Materials used, principles involved and Types of flower arrangements.	10
Unit VI	**Home** • Functions of home • Renting verses owning house • Advantages and disadvantages of renting and owning a house • Factors to be considered in selection of family housing, selection of site, soil, locality, orientation and sanitation of a house, principles of planning a house, housing needs at different stages of family life cycle.	10
Unit VII	**Types of house planning** • Floor plan, • Site plan, • Cross sectional plan, • Perspective plan, • Elevation plan • Landscape plan.	10
Unit VIII	**Housing finance** • Government and non- government finance institutes. • Housing schemes	5
Unit IX	**Technology in housing** • Advance technology in housing construction • Low cost building technology • Low cost building materials.	5

Recommended Readings

- Bhargava, B. 2001. Family Resource Management and Interior Decoration. University Book House Ltd. Jaipur.
- Bhargava, B.2001 .Housing and Space Management, University Book House Ltd. Jaipur.
- Seetharaman P. and Sethi M. (2002).Interior Design and Decoration. CBS Publishers and Distributors. New Delhi.
- Gewther, M. (1970).The Home, its Furnishings and Equipment U.S.A. Mc. GrawHill.
- Gupta, G. Garg, N. and Aggarwal, N (2007). Text Book of Family Resource Management Hygiene and Physiology. Kalyani Publishers.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature- study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-VI
Bachelor in Home Science (Honours)
DICIPLINE SPECIFIC COURSE (DSC-18)- Practical based on DSC-17

No. of Hours-120

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSC-18 Practicalon DSC-17	4	0	0	4	Passed class XII with Science, Arts and Commerce	Nil

Bachelor in Home Science (Honours)		
Programme/Class: Bachelor in Home Science (Honours)	**Year: Third**	**Semester: Sixth** **Paper: DSC-18**
Subject: Home Science		
Course- DSC-18	**Course Title: Practical on DSC-17**	

Course outcome:
The Student at the completion of the course will be able to:

1. To learn about elements and principles of art and their application in interior designing.
2. To gain better understanding of interior enrichment.

Credits: 4	**DISCIPLINE SPECIFIC COURSE**
Max. Marks: As per Univ. Rules	**Min. Passing Marks: As per Univ. rules**

Unit	Topics	No. of Hours
Unit I	Development of motif for primary, secondary and tertiary colours	10
Unit II	Drawing colour wheel, colour schemes, values and intensity scale	10
Unit III	Drawing for arrangement of furniture in different rooms, Bed Room, Kitchen, Drawing Room and Study Room	10
Unit IV	Drawings for different surface arrangements of interiors a) Arrangement of walls b) Arrangement of floors c) Ceiling arrangements	20
Unit V	Market survey – different types of wall and floor coverings.	20

Unit VI	Learning architectural symbols, planning, preparing and reading of blue prints, development of master plan	20
Unit VII	Drawing of house plans for different income levels.	10
Unit VIII	Learning of drawing, isometric projections of house plan	10
Unit IX	Market survey to study the available building materials in the local market	10

Recommended Readings

- Bhargava, B. 2001. Family Resource Management and Interior Decoration. University Book House Ltd. Jaipur.
- Bhargava, B.2001 .Housing and Space Management, University Book House Ltd. Jaipur.
- Seetharaman P. and Sethi M. (2002).Interior Design and Decoration. CBS Publishers and Distributors. New Delhi.
- Gewther, M. (1970).The Home, its Furnishings and Equipment U.S.A. Mc. GrawHill.
- Gupta, G. Garg, N. and Aggarwal, N (2007). Text Book of Family Resource Management Hygiene and Physiology. Kalyani Publishers.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-VI
Bachelor in Home Science (Honours)
DICIPLINE SPECIFIC ELECTIVE
(DSE-4)- Textile Designing and Use of CAD

No. of Hours-30+60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisiteof the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSE-4 Textile Designing and Use of CAD	4	2	0	2	Passed class XII with science, Arts and commerce	Nil

Bachelor of Home Science (Honours)		
Programme/Class: Bachelor of Home Science	Year: Third	Semester: Sixth Paper: DSE-4
Subject: Home science		
Course-DSE-4	Course Title: Textile Designing and Use of CAD	

Course outcomes: The Student at the completion of the course will be able to:

- To introduce them about various advanced Textile and Apparel Designing software packages and develop the creativity of the students in use of CAD software.

Credits: 4	Discipline Specific Elective
Max. Marks: As per Univ. Rules	**Min. Passing marks:** As per Univ. Rules

Unit	Topics	No. of Hours
Unit I	**Introduction to textile designs.** • Woven design: simple and compound structures of the fabric • Decorative designs: Ethnic designs, historic designs, contemporary designs, abstract designs, stylized designs, geometric designs, naturalistic designs, Realistic designs	6
Unit II	Application of various design elements and principles in textile designing	6
Unit III	Fancy and ornamental weaves: Pile weave, leno weave, tapestry weave, dobby, jacquard weave and extra yarn figuring	6
Unit IV	Automatic Printing techniques: Roller, screen, heat transfer printing, flock printing, resist printing.	4

Unit V	Basics of Design and Repeat software: Types of design repeats, Tools for designing, Drawing and Editing different menus	4
Unit VI	Creating and editing motifs, Adaptation of basic motif for design organization, use of computer colour palette for colouring the designs	4
	Practical	
Unit I	Demonstration of Basic of design and repeat software CAD	5
Unit II	Demonstration of Coral Draw Window	5
Unit III	Creation of textile design in Coral Draw	10
Unit IV	The Harmony of Colour Form • Colour Wheel and Colour Scheme • Harmony according to colour wheel	5
Unit V	Design development: All over design, Border design, Spot design and Pallav design	5
Unit VI	Design Development from Basic Motifs	5
Unit VII	Weaving: Graphical representation of straight draft plan, lift plan and tie-up of plain weave and its variations	5
Unit VIII	Creating library for various designs (Ethnic designs, historic designs, contemporarydesigns, Abstract designs, Stylized designs, Geometric designs, Naturalistic designs, Realistic designs)	5
Unit IX	Preparing two dress material/household articles using CAD software.	5
Unit X	Visit to Fashion Institute	10

Suggested Readings:

- CAD design software manuals
- Davis L Msrisn. 1980. *Visual Design in Dress.* PrenticeHall.
- Rene Weiss Chase 1997. *CAD for Fashion Design.* PrenticeHall.
- Winfred Aldrich 1992. *CAD in Clothing &Textiles.* BSP ProfessionalBooks.
- Yates MP. 1996. *Textiles – A Handbook for Designers.* W.W.Norton.

Suggested Digital Platform:

http://ecoursesonline.iasri.res.in/course/view.php?id=196

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance

Semester-VI
Bachelor in Home Science (Honours)
GENERIC ELECTIVE(GE-6)- Programme Planning, Implementation and Evaluation

No. of Hours-60

CREDIT DISTRIBUTION, ELIGIBILITYAND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit distribution of the course			Eligibility Criteria	Pre-requisite of the course(if any)
		Lecture	Tutorial	Practical/ Practice		
GE-6 Programme Planning, Implementation and Evaluation	4	4	0	0	Passed class XII with science, Arts and commerce	Nil

Bachelor in Home Science (Honours)		
Programme/Class: Bachelor in Home Science	**Year: Third**	**Semester: Fifth Paper: GE-6**
Subject: Home science		
Course: GE-6	**Course Title: Programme Planning, Implementation and Evaluation**	

Course outcomes:
The Student at the completion of the course will be able to:
- To understand about importance, objectives and principles of extension programme planning.
- To learn about execution, monitoring and evaluation of extension programme planning.

Credits: 4	**GENERIC ELECTIVE**
Max. Marks: As per Univ. Rule	**Min. Passing Marks:** As per Univ. rules

Unit	Topics	No. of Hours
Unit I	Extension Programme: meaning and definition, need and Characteristic.	10
Unit II	Extension Programme Planning: meaning and definition, importance, objectives, principles, steps in programme planning.	10
Unit III	Leader: meaning and definition, qualities of a leader, Role of a leader, types of leaders.	10

Unit IV	Execution of programme: steps/ procedures in programme execution, Role of leaders, local bodies, organisations and extension agencies in programme execution, constraints in programme implementation at grass root level	20
Unit V	Monitoring and evaluation: definition, importance, types, principles,	10

Recommended Readings:

- **Dahama, O.P. and Bhatnagar, O.P. (1987).** Education and Communication for Development, Oxford and IBH Publishing Co., New Delhi.
- **Leagans, J.P. (1961).** Programme Planning to Meet People‟s Needs. In: Extension Education in Community Development, Directorate of Extension, Ministry of Food and Agriculture, Govt. of India. New Delhi.
- **Ray, G.L. (2001).** Extension Communication and Management. Naya Prakash, Calcutta, 4th edition.
- **Sandhu, A.S. (1994).** Extension Programme Planning. Oxford and IBH Publishing Co., New Delhi.

Supe, S.V. (1983). An Introduction to Extension Education, Oxford and IBH Co., New Delhi.

- **Swanson, Burton, E. Ed. (1984).** Agricultural Extension. A Reference Manual, Rome, Food and Agricultural Organization (FAO), of the United Nations, 2nd Edition.

Suggested equivalent online courses: On Swayam, Vidyamitra.inflibnet.ac.in, literature-study-online.com, epg-pathshala, egyankosh.ac.in

Suggested Continuous Evaluation Methods: Seminar/ Presentation on any topic of the above syllabus Test with multiple choice questions/ short and long answer questions Attendance