



## **University of Kerala**

### **Four Year Under Graduate Programme (UoK FYUGP)**

### **Syllabus**

### **Major Discipline Home Science**

**May 2024**

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**MEMBERS OF BOARD OF STUDIES IN HOME  
SCIENCE (PASS)**

<b>Name</b>	<b>Official address</b>	<b>BoS Designation</b>
Dr Mini Joseph	Associate Professor, PG Department & Research Centre of Home Science, Government College for Women, Thiruvananthapuram	Chairman
Smt. Shyna PK	Assistant Professor and Head of the Department, PG Department & Research Centre of Home Science, Government College for Women, Thiruvananthapuram	Member
Dr Sheeja PR	Associate Professor and Head of the Department, Department of Home Science, HHMSPB NSS College for Women, Neeramankara, Thiruvananthapuram	Member
Dr Anju M Neeliyara	Assistant Professor & Head of the Department, PG Department of Home Science, St Joseph's College for Women, Alleppey	Member
Dr Selsa S	Associate Professor & Head of the Department, Department of Home Science, Sree Narayana College for Women, Kollam	Member
Dr Sithara Balan V	Assistant Professor, PG Department & Research Centre of Home Science, Government College for Women, Thiruvananthapuram	Member
Dr Bindu R. Nair	Professor, Department of Botany, University of Kerala, Kariavattom, Thiruvananthapuram	Member

**SUBJECT EXPERTS INVOLVED IN CONSTRUCTING  
THE FYUGP SYLLABUS  
IN HOME SCIENCE, UNIVERSITY OF KERALA**

<b>Name of Faculty</b>	<b>Designation</b>	<b>Official Address</b>
<b>Resource Management and Interior Design</b>		
Dr Aswathy Sugunan	Associate Professor & Principal in Charge	Department of Home Science, Sree Narayana College for Women, Kollam
Dr Selsa S	Associate Professor & Head of the Department	Department of Home Science, Sree Narayana College for Women, Kollam
Dr Seena Gopinathan	Associate Professor	Department of Home Science, Sree Narayana College for Women, Kollam
Dr Rekha V V.	Associate Professor	Department of Home Science, Sree Narayana College for Women, Kollam
Dr Sandhya Suresh	Associate Professor	Department of Home Science, Sree Narayana College for Women, Kollam
Smt. Indu Suresh	Assistant Professor	Department of Home Science, Sree Narayana College for Women, Kollam
Smt. Seema Gopinathan	Assistant Professor	Department of Home Science, Sree Narayana College for Women, Kollam
Dr Brigit Varghese	Assistant Professor	PG Department of Home Science, St Joseph's College for Women, Alleppey
<b>Development Communication and Extension</b>		
Prof Lalita Vatta	Professor	Department of Home Science, Mahila Mahavidyalay, Banaras Hindu University, Varanasi
Prof Sarita Anand	Professor and Head	Department of Development Communication & Extension, Lady Irwin College, University of Delhi

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Dr Sithara Balan V	Assistant Professor (Extension Education)	PG Department & Research Centre of Home Science, Government College for Women, Thiruvananthapuram
Smt. Seema Gopinathan	Assistant Professor	Department of Home Science, Sree Narayana College for Women, Kollam
Dr Garima Gupta	Assistant Professor (Extension Education)	PG Department & Research Centre of Home Science, Government College for Women, Thiruvananthapuram
Smt Neeshma S	Guest Lecturer	PG Department & Research Centre of Home Science, Government College for Women, Thiruvananthapuram
Adv Anson PD Alexander	Director	Kanal Innovations Charitable Trust (NGO), Kollam
<b>Food Science, Nutrition and Dietetics</b>		
Dr Anju M Neeliyara	Assistant Professor & Head of the Department	PG Department of Home Science, St Joseph's College for Women, Alleppey
Smt. Shyna. P.K	Assistant Professor & Head of the Department	PG Department & Research Centre of Home Science, Government College for Women, Thiruvananthapuram
Dr Meera DK	Assistant professor	PG Department & Research Centre of Home Science, Government College for Women, Thiruvananthapuram
Dr Bhagya D	Assistant Professor	PG Department of Home Science, St Joseph's College for Women, Alleppey
Smt. Jiby Abraham	Assistant Professor	PG Department of Home Science, St Joseph's College for Women, Alleppey
Smt. Indu Suresh	Assistant Professor	Department of Home Science, Sree Narayana College for Women, Kollam
Dr. Gayathry C P	Assistant Professor	Department of Home Science, HHMSPB NSS College for Women, Neeramankara, Thiruvananthapuram
Smt. Neethu Jose	Assistant Professor	PG Department of Home Science, St Joseph's College for Women, Alleppey

<b>Child Development</b>		
Smt. Fairsoosa. T	Assistant Professor	PG Department & Research Centre of Home Science, Government College for Women, Thiruvananthapuram
Smt. Lenus Deepa Francis	Assistant Professor	PG Department of Home Science, St Joseph's College for Women, Alleppey
Dr. Dhanya. N	Associate Professor	Department of Home Science St. Teresa's College (Autonomous) Ernakulam
<b>Textile Science</b>		
Dr Sheeja PR	Associate Professor and Head of the Department	Department of Home Science, HHMSPB NSS College for Women, Neeramankara, Thiruvananthapuram
Dr Selsa S	Associate Professor and Head of the Department	Department of Home Science, Sree Narayana College for Women, Kollam
Dr Rekha V V.	Associate Professor	Department of Home Science, Sree Narayana College for Women, Kollam
Dr.Gayathry.C.P	Assistant Professor	Department of Home Science, HHMSPB NSS College for Women, Neeramankara, Thiruvananthapuram
Smt. Neethu Jose	Assistant Professor	PG Department of Home Science, St Joseph's College for Women, Alleppey
Dr Brigit Varghese	Assistant Professor	PG Department of Home Science, St Joseph's College for Women, Alleppey

## **ABOUT THE DISCIPLINE**

Home Science is a multidisciplinary course that systematically focuses on the practical aspects of managing a home, family, and community efficiently and effectively. Home Science, often misconstrued as merely domestic chores or culinary arts, encompasses a diverse array of disciplines ranging from Food Science, Nutrition & Dietetics, Development Communication and Extension, Child Development, Resource Management and Interior Design and Textile Science. This course equips students with essential life skills and knowledge to create a harmonious and healthy living environment. It holds immense power and potential to enhance our daily lives in profound ways. From meal planning and nutritional advice to interior design and consumer economics, textiles to apparel design and communication for development. It plays a pivotal role in fostering positive family dynamics and child development. Thus, Home Science encompasses a wide spectrum of disciplines crucial for nurturing the well-being and sustainability in households and community.

The job opportunities in the field of Textile Science include-apparel production managers, colour consultants, fashion designer, entrepreneurs in fashion boutiques/ tailoring units, fashion illustrator, textile technician, computer imaging consultant, merchandise displayer.

The area of Development Communication and Extension opens up opportunities in social welfare departments, non-governmental organisation, as gender consultants/ analysts/social development consultants/rural development officers/community development officers, extension and community health educators in the departments of social justice, women and child welfare, geriatric welfare centres/ national and international agencies including NIRD PR, SIRD, ETC, UNICEF, UNDP, WHO, UNFPA, EDCIL India, subject matter specialist in Krishi Vigyan Kendras (KVK) and community development centres.

The Field of Nutrition has careers as diet consultants, nutritionist /dietitian in hospitals/hotels/ corporate, in the hospitality industry, governmental /non- governmental organisations nutrition programs, food industry as nutritionists, fitness centres/private clinics, food subject experts, scientists in food laboratory, food product tester, kitchen food assembler, quality control technician, cake decorator, food technician, dietary assistant, dietetic technician, food technologist, nutritionist, caterer, food service manager, specialty cook, chef.

Careers in Child Development include starting their own school, crèche nursery schools, family planning agencies, family counselling centres, pre-primary training centres, social service technician/aide, community worker, child day care supervisor, preschool teacher, special education aide, after-school programme supervisor.

The study of Resource management and Interior Design helps build careers as interior designers, resource developers, housekeeping department of a hospital / hotel /corporates / residential institutes, guest house manager, housekeeping manager, hospitality supervisor, hotel/motel manager, convention coordinator, window display designer, photo-stylist.

Besides these opportunities, a graduate in Home science is eligible to work as teachers in schools/colleges/catering colleges/nursing colleges/non-governmental organisations, agricultural research centres, social welfare departments, International agencies like United Nations International Children's Emergency Fund(UNICEF), Food and Agricultural Organisation(FAO), Cooperative For American Relief Everywhere(CARE), Project fellows in various projects, and they can also appear for all Public Service Commission exams where eligibility is a degree.



## **GRADUATE ATTRIBUTES**

Graduate attributes bridge the gap between academia and the real world, fostering lifelong learning and meaningful contributions. They denote the skills, competencies and high-level qualities that a student should acquire during their university education. Apart from gathering content knowledge, these attributes go beyond the assimilation of information to its application in various contexts throughout a graduate's life. It aims in inculcating the art of critical thinking, problem solving, professionalism, leadership readiness, teamwork, communication skills and intellectual breadth of knowledge. The University of Kerala envisages to pave the path in guiding the student's journey to shape these attributes uniquely, making them integral to personal growth and success in various spheres of life. The University strives to ensure that these graduate attributes are not just checkboxes, but they play a pivotal role in shaping the students into capable, compassionate, and responsible individuals with a high degree of social responsibility.

**PROGRAMME OUTCOMES (PO)**

No.	Programme Outcomes (POs)
PO-1	<p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>○ analyse information objectively and make a reasoned judgment.</li> <li>○ draw reasonable conclusions from a set of information and discriminate between useful and less useful details to solve problems or make decisions.</li> <li>○ identify logical flaws in the arguments of others.</li> <li>○ evaluate data, facts, observable phenomena, and research findings to draw valid and relevant results that are domain-specific</li> </ul>
PO-2	<p><b>Complex problem-solving</b></p> <ul style="list-style-type: none"> <li>○ solve different kinds of problems in familiar and no-familiar contexts and apply the learning to real-life situations.</li> <li>○ analyse a problem, generate and implement a solution and to assess the success of the plan</li> <li>○ understand how the solution will affect both the people involved and the surrounding environment</li> </ul>
PO-3	<p><b>Creativity</b></p> <ul style="list-style-type: none"> <li>○ produce or develop original work, theories and techniques</li> <li>○ think in multiple ways for making connections between seemingly unrelated concepts or phenomena</li> <li>○ add a unique perspective or improve existing ideas or solutions</li> <li>○ generate, develop and express original ideas that are useful or have values</li> </ul>
PO-4	<p><b>Communication skills</b></p> <ul style="list-style-type: none"> <li>○ convey or share ideas or feelings effectively</li> <li>○ use words in delivering the intended message with utmost clarity</li> <li>○ engage the audience effectively</li> <li>○ be a good listener who are able to understand, respond and empathize with the speaker</li> <li>○ confidently share views and express himself/herself</li> </ul>

<p><b>PO-5</b></p>	<p><b>Leadership qualities</b></p> <ul style="list-style-type: none"> <li>○ work effectively and lead respectfully with diverse teams</li> <li>○ build a team working towards a common goal</li> <li>○ motivate a group of people and make them achieve the best possible solution.</li> <li>○ help and support others in their difficult times to tide over the adverse situations with courage</li> </ul>
<p><b>PO-6</b></p>	<p><b>Learning ‘how to learn’ skills</b></p> <ul style="list-style-type: none"> <li>○ acquire new knowledge and skills, including ‘learning how to learn skills, that are necessary for pursuing learning activities throughout life, through self-paced and self-directed learning</li> <li>○ work independently, identify appropriate resources required for further learning</li> <li>○ acquire organizational skills and time management to set self-defined goals and targets with timelines</li> <li>○ inculcate a healthy attitude to be a lifelong learner</li> </ul>
<p><b>PO-7</b></p>	<p><b>Digital and technological skills</b></p> <ul style="list-style-type: none"> <li>○ use ICT in a variety of learning and work situations, access, evaluate, and use a variety of relevant information sources</li> <li>○ use appropriate software for analysis of data</li> <li>○ understand the pitfalls in the digital world and keep safe from them</li> </ul>
<p><b>PO-8</b></p>	<p><b>Value inculcation</b></p> <ul style="list-style-type: none"> <li>○ embrace and practice constitutional, humanistic, ethical, and moral values in life including universal human values of truth, righteous conduct, peace, love, nonviolence, scientific temper, citizenship values</li> <li>○ formulate a position/argument about an ethical issue from multiple perspectives</li> <li>○ identify ethical issues related to work, and follow ethical practices, including avoiding unethical behaviour such as fabrication, falsification or misrepresentation of data, or committing plagiarism, and adhering to intellectual property rights</li> <li>○ adopt an objective, unbiased, and truthful actions in all aspects of work</li> </ul>

## **PROGRAMME SPECIFIC OUTCOMES (PSO)**

**PSO 1-** Appreciate and leverage the symbiotic relationship among the five core disciplines of Home Science: Resource Management, Food Science & Nutrition, Textile and Clothing, Child Development and Family Studies, and Extension and Communication.

**PSO 2-** Acquire professional skills in food, nutrition, textiles, resource management and interior decoration, product development, communication technologies, and child development, enabling them to excel in diverse career paths.

**PSO 3-** Promote research, innovation, and product development across all disciplines of Home Science, fostering advancement and addressing societal needs.

**PSO 4-** Enhance digital literacy and utilize digital tools for real-time problem-solving and ideation in various areas of Home Science.

**PSO 5-** Translate scientific knowledge from the laboratory into practical solutions that benefit individuals and communities, bridging the gap between academia and society.

**PSO 6-** Acquire entrepreneurial skills to achieve economic empowerment for themselves and contribute to the economic development of their communities.

**PSO7-** Implement sustainable practices and advocacy for eco-friendly approaches in all aspects of Home Science- Resource Management, Food Science & Nutrition, Textile and Clothing, Child Development and Family Studies, and Extension and Communication

## COURSE FRAMEWORK IN THE MAJOR DISCIPLINE OF HOME SCIENCE

Course	Name of course	Level	Credit	Hrs
<b>Semester 1</b>				
<b>DSC</b>				
UK1DSCHSC100	Fundamentals of Sustainable Living I	100-199	3+1	5
UK1DSCHSC101	Nutrition for Health	100-199	3+1	5
UK1DSCHSC102	Family Dynamics	100-199	3+1	5
<b>MDC</b>				
UK1MDCHSC100	Life skill Training	100-199	3	3
UK1MDCHSC101	Nutrition in Cosmetology	100-199	3	3
<b>Semester 2</b>				
<b>DSC</b>				
UK2DSCHSC100	Fundamentals of Sustainable Living II	100-199	3+1	5
UK2DSCHSC101	Social Media Marketing	100-199	3+1	5
UK2DSCHSC102	Fashion and Image styling	100-199	3+1	5
<b>MDC</b>				
UK2MDCHSC100	Mental Health and Adolescent Counselling	100-199	3	3
UK2MDCHSC101	Creative art for interiors	100-199	3	3
<b>Semester 3</b>				
<b>DSC</b>				
UK3DSCHSC200	Child Development	200-299	3+1	5
UK3DSCHSC201	Furnishing in interiors	200-299	3+1	5
UK3DSCHSC202	Nutrition through life cycle	200-299	3+1	5

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<b>DSE</b>				
UK3DSEHSC200	Event Management	200-299	4	4
UK3DSEHSC201	Textile Heritage of India	200-299	4	4
UK3DSEHSC202	Basic Food Science	200-299	4	4
UK3DSEHSC203	Skills for working with children.	200-299	4	4
UK3DSEHSC204	Theatre for Social Change	200-299	4	4
<b>VAC</b>				
UK3VACHSC200	Gender and Society	200-299	3	3
<b>Semester 4</b>				
<b>DSC</b>				
UK4DSCHSC200	Residential space planning	200-299	3+1	5
UK4DSCHSC201	Human Nutrition	200-299	3+1	5
<b>DSE</b>				
UK4DSEHSC200	Nutritional Management of Specific Lifestyle Diseases	200-299	3+1	5
UK4DSEHSC201	Apparel Industry and quality assessment	200-299	3+1	5
UK4DSEHSC202	Application of colour in interiors	200-299	3+1	5
UK4DSEHSC203	Health Communication	200-299	3+1	5
<b>SEC</b>				
UK4SECHSC200	Entrepreneurship Development	200-299	3	3
UK4SECHSC201	Art of Flower Arrangement	200-299	3	3
<b>VAC</b>				
UK4VACHSC200	Early Childhood Care and Education	200-299	3	3
UK4VACHSC201	Sustainable Living	200-299	3	3

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<b>SUMMER INTERNSHIP</b>				
<b>Semester 5</b>				
<b>DSC</b>				
UK5DSCHSC300	Resource management- Concepts and Contexts	300-399	4	4
UK5DSCHSC301	Social and Behaviour Change Communication	300-399	3+1	5
UK5DSCHSC302	Textile Science-Fibre to Fabric	300-399	4	4
<b>DSE</b>				
UK5DSEHSC300	Food Service Management	300-399	4	4
UK5DSEHSC301	Textile design Techniques	300-399	3+1	5
UK5DSEHSC302	Community Management	300-399	3+1	5
UK5DSEHSC303	Family Finance and Consumer Behaviour	300-399	3+1	5
UK5DSEHSC304	Inclusive education	300-399	3+1	5
UK5DSEHSC305	Front Office Management	300-399	3+1	5
UK5DSEHSC306	Food safety and Quality Control	300-399	3+1	5
UK5DSEHSC307	Film Making for Social Change	300-399	4	4
UK5DSEHSC308	Lighting and accessories for interiors	300-399	4	4
UK5DSEHSC309	Child Rights and Welfare Perspectives	300-399	4	4
<b>SEC</b>				
UK5SECHSC300	Developmental Journalism	300-399	3	3
UK5SECHSC301	Applied art on soft furnishings	300-399	3	3

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<b>Semester 6</b>				
<b>DSC</b>				
UK6DSCHSC300	Clinical Nutrition and Dietetics	300-399	4	4
UK6DSCHSC301	Apparel Designing- Fabric to Garment	300-399	3+1	5
UK6DSCHSC302	Social Psychology	300-399	4	4
<b>DSE</b>				
UK6DSEHSC300	Food Product Development	300-399	3+1	5
UK6DSEHSC301	Climate Communication	300-399	3+1	5
UK6DSEHSC302	Developmental challenges of children with disabilities	300-399	3+1	5
UK6DSEHSC303	Interior Finishes	300-399	3+1	5
UK6DSEHSC304	Nutritional concerns in Public Health	300-399	4	4
UK6DSEHSC305	Guidance and counselling	300-399	4	4
UK6DSEHSC306	Training and Development	300-399	4	4
<b>SEC</b>				
UK6SECHSC300	Patisserie and Confectionery	300-399	3	3
UK6SECHSC301	Indoor Gardening	300-399	3	3
<b>Semester 7</b>				
<b>DSC</b>				
UK7DSCHSC400	Research Methodology and Statistics	400-499	3+1	5
UK7DSCHSC401	Human Physiology and Nutritional Biochemistry	400-499	3+1	5



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<b>DSE</b>				
UK7DSEHSC400	Artificial intelligence (AI) in Nutritional Health	400-499	3+1	5
UK7DSEHSC401	Landscape Gardening	400-499	3+1	5
UK7DSEHSC402	Sports and Fitness Nutrition	400-499	3+1	5
UK7DSEHSC403	Early Intervention and Management	400-499	3+1	5
UK7DSEHSC404	Urban and Rural Development	400-499	3+1	5
<b>Semester 8</b>				
UK8DSCHSC400	Digital Media And Marketing	400-499	4	4
UK8DSCHSC401	Ergonomics In Workspace Design	400-499	4	4
UK8CIPHSC400	Internship Project	400-499	12	
UK8RPHHSC400	Research Project	400-499	12	

**LIST OF DISCIPLINE SPECIFIC ELECTIVES FOR EACH STREAM OF HOME SCIENCE**

Course	Name of course	Type/ Level	Specialisation
UK3DSEHSC200	Event Management	200-299	<b>* BSc Home Science (Resource Management and Interior Design)</b>
UK4DSEHSC202	Application of colour in interiors	200-299	
UK5DSEHSC303	Family Finance and Consumer Behaviour	300-399	
UK5DSEHSC305	Front Office Management	300-399	
UK5DSEHSC308	Lighting and accessories for interiors	300-399	
UK6DSEHSC303	Interior Finishes	300-399	
UK7DSEHSC401	Landscape Gardening	400-499	
UK3DSEHSC202	Basic Food Science	200-299	<b>*BSc Home Science Food Science, Nutrition &amp; Dietetics)</b>
UK4DSEHSC200	Nutritional Management of Specific Lifestyle Diseases	200-299	
UK5DSEHSC300	Food Service Management	300-399	
UK5DSEHSC306	Food safety and Quality Control	300-399	
UK6DSEHSC300	Food Product Development	300-399	
UK6DSEHSC304	Nutritional concerns in Public Health	300-399	
UK7DSEHSC400	Artificial intelligence (AI) in Nutritional Health	400-499	
UK7DSEHSC402	Sports and Fitness Nutrition	400-499	<b>* BSc Home Science (Development Communication and Extension)</b>
UK3DSEHSC204	Theatre for Social Change	200-299	
UK4DSEHSC203	Health Communication	200-299	
UK5DSEHSC302	Community Management	300-399	
UK5DSEHSC307	Film Making for Social Change	300-399	

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UK6DSEHSC301	Climate Communication	300-399	
UK6DSEHSC306	Training and Development	300-399	
UK7DSEHSC404	Urban and Rural Development	400-499	
UK3DSEHSC203	Skills for working with children	200-299	<b>*BSc Home Science (Child Development)</b>
UK5DSEHSC304	Inclusive education	300-399	
UK5DSEHSC309	Child Rights and Welfare Perspectives	300-399	
UK6DSEHSC302	Developmental challenges of children with disabilities	300-399	
UK6DSEHSC305	Guidance and counselling	300-399	
UK7DSEHSC403	Early Intervention and Management	400-499	

**\*if a student takes any 4 Discipline Specific Electives from a given stream, then student gets the corresponding specialisation in their mark list as illustrated in the last column as per UoK Rules and Regulations.**

# **SEMESTER 1**



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK1DSCHSC100</b>				
Course Title	<b>FUNDAMENTALS OF SUSTAINABLE LIVING I</b>				
Type of Course	<b>DSC</b>				
Semester	I				
Academic Level	100 - 199.				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites	Fundamentals of Sustainable Living I				
Course Summary	This course builds upon the foundational concepts of sustainable living introduced in Fundamentals of Sustainable Living I. It will lay the foundation for building upon sustainable practices in food, clothing, and shelter. Students will delve into the basic concepts of Human Nutrition, Clothing and Textile and Resource Management. Through a combination of theoretical learning and practical applications, students will develop a comprehensive understanding of sustainable living principles and how they can be integrated into everyday life.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>FOOD, NUTRITION AND HEALTH</b>		<b>12</b>
	1	Nutrition and Health, Dimensions of health – physical, mental, social	
	2	Definitions and terms- Health, Food, Nutrients, Nutrition, Balanced Diet, Malnutrition	
	3	Functions of Food – Physiological, Social, Psychological	
<b>II</b>	<b>FOODS AND RECOMMENDED ALLOWANCES- AN OVERVIEW</b>		<b>12</b>
	4	Classification of Foods- based on functions.	
	5	Basic Five Food Groups, Principles of Meal Planning, Food Pyramid, My Plate.	

	6	Recommended Dietary Allowances and Factors affecting RDA, Reference Man and Woman.	
	7	General principles and objectives of diet therapy	
<b>III</b>	<b>FUNDAMENTALS OF INTERIOR DESIGNING</b>		<b>12</b>
	8	Interior Design – Meaning and concepts. Role of Interior design in the modern era.	
	9	Objectives of aesthetic planning - Beauty, expressiveness, and functionalism.	
	10	Design –Definition, Types - Structural and decorative design.	
	11	Classification of decorative design - Naturalistic, geometric, abstract and biomorphic.	
	12	Elements of design - Line, form, colour, and texture and its application in the interiors.	
	13	Application of the Principles of design–Balance, rhythm, emphasis, harmony and proportion in interior designing.	
<b>IV</b>	<b>FUNDAMENTALS OF TEXTILE AND CLOTHING</b>		<b>12</b>
	14	Textile Terminology - fibre, yarn, weaving, loom, fabric, grain, selvedge and fabric finishes. Classification of textile fibres- natural (cotton, wool, jute, silk) and artificial fibres (rayon, nylon, polyester)	
	15	Fashion terminology-fashion, fad, classic, fashion accessories, fashion illustration, fashion cycle, Knockoff, toile, atelier, boutique, empire line and season. Sources of fashion inspiration- print and electronic media, web resources, historic or traditional costumes, travel, people, nature, fabrics, streets and architecture.	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	16	Identifying and grouping different foods- traditional and exotic foods	
	17	Designing/photographs of a customised “My Plate” for different ethnic groups	
	18	Collection of samples of different types of fibres	
	19	Make a portfolio of fashion illustration- Casual wear, formal wear, party wear and sportswear	
	20	Preparation of a portfolio on the application of the elements and principles of design in interiors.	
	21	Taking photographs of the application of decorative designs in interiors.	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Gain knowledge on the basic terms, aspects of nutrition and functions of food in healthy life sustenance	U	PSO1 PSO2
CO-2	Acquire an understanding of the basic principles of Food Science and Nutrition	U, Ap	PSO1 PSO2 PSO7
CO-3	Understand the role of elements and principles of design in interior designing	U	PSO1 PSO2
CO-4	Apply the principles of design while designing an interior space.	Ap	PSO1 PSO2 PSO7
CO-5	Demonstrate a comprehensive understanding of textile and fashion terminology	U	PSO1 PSO2
CO-6	Develop practical skills in students for further studies or careers in textiles, fashion design or related industries	U, Ap	PSO1 PSO2 PSO7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
1	Gain knowledge on the basic terms, aspects of nutrition and functions of food in healthy life sustenance	PO1 PO3 PSO1 PSO2	U	F, C	L	-
2	Acquire an understanding of the basic principles of Food Science and Nutrition	PO1 PO3 PSO1 PSO2	U, Ap	F, C, P	L	-
3	Understand the role of elements and principles of design in interior designing.	PO1 PO3 PO6 PSO1 PSO2	U, Ap	F, C	L	-
4	Apply the principles of design while designing an interior space.	PO1 PO3 PO6 PSO1 PSO2	U, Ap	F,C, P	L	-
5	Demonstrate a comprehensive understanding of textile and fashion terminology	PO1 PO3 PO6 PSO1 PSO2	U	F,C	L	-
6	Develop practical skills in students for further studies or careers in textiles, fashion design or related industries	PO1 PO3 PO6 PSO1 PSO2 PSO7	U, Ap	F, C, P	L	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**



**Mapping of COs with PSOs and POs :**

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PO1	PO2	PO3	PO4	PO5	PO6
CO 1	1	1	-	-	-	-		2		2			2
CO 2	1	1	-	-	-	-	2	2		2			2
CO 3	2	2		-	-	-		2		2			2
CO 4	1	2			-	-	2	2		2			2
CO 5	1	2	-	-	-	-		2		2			2
CO 6	1	2	-	-	-	-	2	2		2			2

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4		✓		✓
CO 5		✓		✓
CO 6			✓	

**References:**

1. Frida Ramstedt.(2020).The Interior Design Handbook: Furnish, Decorate and Style Your Space: Clarkson Potter publishers
2. Chris Grimley. (2018). The Interior Design: Rockport Publishers
3. Amber Lewis. (2020).Made for Living: Clarkson Potter Publishers.
4. Corbman P.B. (1985). Textiles-Fibre to Fabric. New York: McGraw Hill Book Co. Chapter 13-22,33 pg 245-586
5. Joseph M.L. (1988), Essentials of Textiles (5th Edition), Holt, Florida Rinehart and Winston Inc. Chapter 2 pg 31-36, 45-89
6. Frings G. (1996). Fashion-From Concept to Consumer (5th Edition). USA: Prentice Hall Publications, Chapter 1, 2, 3, pp. 4- 16, 49, 63-75.
7. Srilakshmi, B (2020), Food Science, New Delhi; New Age International (P) Ltd. Publishers
8. Gopalan, C; Sastri, B.V.R and Balasubramanian, S.C (1989), “Nutritive Value of Indian Foods”, Hyderabad; National Institute of Nutrition, ICMR, Pp 45-95.



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK1DSCHSC101</b>				
Course Title	<b>NUTRITION FOR HEALTH</b>				
Type of Course	<b>DSC</b>				
Semester	I				
Academic Level	100 – 199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites					
Course Summary	The " Nutrition for Health" course is a comprehensive exploration of the principles and concepts that underpin the role of nutrition in maintaining optimal health and well-being. This course is designed to provide a solid foundation in understanding how nutrients affect the body, dietary requirements, and the deficiency symptoms of various nutrients.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>FOOD AND NUTRITION</b>		<b>12</b>
	1	Introduction- Food and its relation to health, Dimensions of health, functions of Food, Functional classification of food	
	2	Energy –Definition, forms of energy, units of measurement, physiological fuel vales of energy, determination of energy value of foods	
	3	BMR – definition, Determination and factors affecting, Factors affecting energy requirements, diet induced thermogenesis (SDA)	
	4	Water: Functions, dehydration	

<b>II</b>	<b>MACRONUTRIENTS</b>		<b>12</b>
	5	Carbohydrate – Classification, functions, sources and deficiencies Dietary fibre- types and functions	
	6	Protein –Classification, functions, sources and deficiencies	
	7	Fat-Classification, functions, , sources and deficiencies	
<b>III</b>	<b>MICRONUTRIENTS- VITAMINS</b>		<b>12</b>
	8	Fat-soluble Vitamins (A, D, E & K)- Function, sources and deficiency	
	9	Water soluble vitamins: Thiamin, Riboflavin, Niacin, B12, Folic acid, and Vitamin C: functions, food sources, deficiencies.	
<b>IV</b>	<b>MICRONUTRIENTS - MINERALS</b>		<b>12</b>
	10	Macro minerals- Calcium, Phosphorus, Sodium: Functions, sources and deficiencies	
	11	Micro Minerals- Iron, Zinc, Iodine: functions, sources and deficiencies.	
	12	National and International agencies in uplifting the nutritional status – WHO, UNICEF, ICMR, NIN, CFTRI. Various nutrition related welfare program, ICDS, SLP, (in brief)	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>12</b>
	13	Classify foods on the basis of nutrients:-carbohydrates, Protein, Iron, Calcium, Vitamin A, Vitamin C	
	14	Record 3 food recipes each for– carbohydrate, protein, fibre,	
	15	Record 3 food recipes each for - vitaminA, vitamin C, iron, calcium	
	16	Prepare a visual aid on any 2 selected nutrients – sources, functions, deficiencies	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO -1	Gain knowledge in basic terminology, aspects of nutrition & functions of food in healthy life sustenance	R, U	PSO 1
CO-2	Explain the functions of specific nutrients in maintaining health	U	PSO-2, 3
CO-3	Identify nutrient specific deficiencies and apply the principles from the various factors of foods and related disciplines to solve practical as well as real world problems	U, Ap	PSO 5
CO 4	Understand the major National and International agencies involved in nutrition activities.	R,U	PSO 2

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course Fundamentals of Human Nutrition : Credits: 4:0:0  
(Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO 1	Gain knowledge in basic terminology, aspects of nutrition & functions of food in healthy life sustenance	<b>PO 8/ PSO 1</b>	R,U	F, C	L	
CO 2	Explain the functions of specific nutrients in maintaining health	<b>PO 2/ PSO 2,3</b>	U	P	L	
CO 3	Identify nutrient specific deficiencies and apply the principles from the various factors of foods and related disciplines to solve practical as well as real world problems	<b>PO 2/ PSO 5</b>	U,Ap	M	L	
CO 4	Understand the major National and International agencies involved in nutrition activities.	<b>PSO 2</b>	R,U	F	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	2	-	-	-	-	-	-	-	-	-	-	-	-	1
CO 2	-	2	2	-	-	-	-	2	-	-	-	-	-	-
CO 3	-	-	-	-	2	-	-	2	-	-	-	-	-	-
CO 4	-	2	-	-	-	-	-	-	-	-	-	-	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓	✓		✓
CO 4	✓			✓

**References:**

Judith E. Brown, 2016, Nutrition Through the lifecycle (6th Edition). Wadsworth Publishing house

Mahna R, Puri S, Khanna K, Gupta S, Passi S J and Seth R. 2016, Textbook of Nutrition and Dietetics, Elite Publishing House.

Srilakshmi. B – “Nutrition Science”, V Edn, New Age International (P) Ltd, Publishers, Chennai

<https://2012books.lardbucket.org/books/an-introduction-to-nutrition/>





**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK1DSCHSC102</b>				
Course Title	<b>FAMILY DYNAMICS</b>				
Type of Course	<b>DSC</b>				
Semester	I				
Academic Level	100-199.				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites					
Course Summary	This course delves into the intricate dynamics of interpersonal relationships within the context of family structures. It explores the various facets of how individuals interact with each other within families/peers/workplace, the roles they play and the impact of these relationships on personal development and well-being.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>UNDERSTANDING THE SELF</b>		<b>12</b>
	1	Self-Awareness and Personality Development.	
	2	Factors that shape one's personality and its influence on behaviour and interpersonal communications.	
	3	Self with family/parents/siblings, peers, social/professional organizations relationships.	
	4	The impact of media on the self.	

<b>II</b>	<b>BASICS OF INTERPERSONAL COMMUNICATION</b>		<b>12</b>
	5	Nurturing positive interpersonal communication and dynamics: perspective taking, empathy, listening and feedback skills.	
	6	Conflicts management and counselling: (in relation with marital, parental, family, and friends).	
	7	Basic skills for a good counsellor.	
<b>III</b>	<b>LIFE CHOICES (WORKPLACE, ROMANTIC RELATIONSHIPS, MARRIAGE)</b>		<b>12</b>
	8	Career choices and professional relationships- mutual respect, mindfulness, appreciation for diversity and open communication.	
	9	Understanding intimate, love and romantic relationships within a cultural context.	
	10	Understanding the role of adjustments in relationships- (Marital adjustments, peer relationships).	
	11	Need and Importance of Sex education	
<b>IV</b>	<b>FAMILY DYNAMICS</b>		<b>12</b>
	12	Definition, functions and types of Family.	
	13	Change and evolution of the family - Family life cycle stages and changing role of family members.	
	14	Family planning and small family norms.	
	15	Forms of family crisis: divorce/separation, remarriage, financial instability, poor work-family balance, illness, death, childlessness, child abuse, family violence, addiction, rape, suicide, unemployment, natural disasters, epidemics and wars.	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	16	Visit any agencies offering support: Family courts, Child guidance clinics, counseling and rehabilitation centers.	
	17	Group discussion/role play/simulations on interpersonal relationships.	
		Select a form of family crisis or stress: Describe ways of preventing and managing the crisis or stress.	
	18	Plan an interaction with a counselor or therapists working in the area of interpersonal conflicts (in the family/peer group/parent-child dyad/workplace).	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	To understand of how family systems influence individuals' lives and relationships.	U	PSO- 1,3
CO-2	To identify the ways and means to strengthen the intra-family relationships.	U, Ap	PSO- 2,7
CO-3	To get familiarized with the roles and functions of the family, crisis management and counselling.	U, Ap, E	PSO- 2,3,5,6
CO-4	To explore communication patterns, roles and cultural influences, students gain valuable insights that can enhance their personal and professional interactions in the future.	Ap, An	PSO- 1,2,4,5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	To understand of how family systems influence individuals' lives and relationships.	PO-1,2 PSO-1,3	U	C	L	
2	To identify the ways and means to strengthen the intra-family relationships.	PO-1,4,7 PSO-2,7	U, Ap	C,P	L	

3	To get familiarized with the roles and functions of the family, crisis management and counselling.	PO-3,4,5 PSO-2,3,5,6	U, Ap, E	P	L	
4	To explore communication patterns, roles and cultural influences, students gain valuable insights that can enhance their personal and professional interactions in the future.	PO-6,7,8 PSO-1,2,4,5	Ap, An	M	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	P O6	P O7	P O8
<b>CO 1</b>	2	-	3	-	-	-	-	3	3	-	-	-	-	-	-
<b>CO 2</b>	-	3	-	-	-	-	2	2	-	-	3	-	-	2	-
<b>CO 3</b>	-	2	3	-	3	2	-	-	-	3	2	3	-	-	-
<b>CO 4</b>	2	2	-	2	3	-	-	-	-	-	-	-	3	3	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Discussion / Seminar
- Visit report/Role play
- Midterm Exam
- Final Exam

**Mapping of COs to Assessment Rubrics:**

	Internal Exam	Assignment	Visit report/Role play	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓	✓	✓
CO 4	✓	✓	✓	✓

**Reference Books:**

1. Arnett, J.J. (2015). Youth, cultures and societies in transition: The challenge of growing up in a globalized world. In F. Gale & S. Fahey. (Eds.), Youth in Transition – The challenges of generational change in Asia (pp 22-35). Bangkok: Regional Unit for Social and Human Sciences in Asia and the Pacific.
2. Baron, R. A., Byrne, D., & Branscombe, N. R. (2016). Social psychology. ND: Pushp Print Services.
3. Chaudhary, N., & Shukla, S. (2019). Family, identity, and the individual in India. In G. Misra (Ed.), Psychology: Volume 2: Individual and the social: Processes and issues (pp.143-189). New Delhi, India: Oxford University Press.
4. D’cruz, P., & Bharat, S. (2001). Beyond joint and nuclear: The Indian family revisited. Journal of Comparative Family Studies, 32(2), 167-194.
5. Duck, S. (2000). Human relationships. ND: Sage.
6. Ganguly-Scrase, R. (2017). Victims and agents: Young people’s understanding of their social world in an urban neighbourhood in India. Young, 15, 321-341.
7. Gardiner, H.W., Mutter, J.D. & Kosmitzki, C. (2008). Lives across cultures: cross-cultural human development. Boston: Allyn and Bacon.
8. Gudykunst, W. B., & Toomey, S. T. (2001). Culture and interpersonal communication. ND: Sage.

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9. Mines, M. (2008). Conceptualizing the person: Hierarchical society and Individual autonomy in India. *American Anthropologist*, 90(3), 568-579.
10. Pestonjee, D. M. (1992). *Stress and coping: The Indian experience*. New Delhi: Sage
11. Weiten, W., & Lloyd, M. A. (2004). *Psychology applied to modern life*. Singapore: Thompson Asia Pvt. Ltd.

**Web Resources:**

1. <https://www.ncbi.nlm.nih.gov/books/nbk560487/>
2. <https://childandfamilystudiesemilyhynynes.weebly.com/5-interpersonal-relationship.html>
3. [https://socialsci.libertexts.org/bookshelves/communication/interpersonal/relationship-A mindful approach/](https://socialsci.libertexts.org/bookshelves/communication/interpersonal/relationship-A%20mindful%20approach/)



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK1MDCHSC100</b>				
Course Title	<b>LIFE SKILL TRAINING</b>				
Type of Course	<b>MDC</b>				
Semester	I				
Academic Level	100-199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites	None				
Course Summary	<p>The abilities that enable a person to be resourceful and optimistic in the face of life's challenges are known as life skills. The goal is to develop one's personality through self-awareness, interpersonal relationships, reflection on the tangible and abstract, change-making and leadership, and adherence to tried-and-true beliefs and ideals. By exposing students to the ideas that drive both personal and professional success, this course aims to maximize their potential and increase their employability. Students will also gain the necessary skills to put these ideas into practice in their daily lives and careers.</p>				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>UNDERSTANDING LIFE SKILLS</b>		<b>9</b>
	1	Life skills: Definitions and different perspectives , WHO and UNESCO life skills.	
	2	Understanding life skills- Self awareness, Empathy, Critical thinking, Creative thinking, Decision making, Problem Solving, Effective Communication, Interpersonal relationship, Coping with stress, Coping with emotions.	
	3	Life skills for professionals- Positive thinking, right attitude,attention to detail, havin g the bigpicture, learning skills,research skills, perseve rance, setting goals and achieving them, helping others, leadership, motivation, self-motivation, and motivating others, personality development, IQ, EQ, and SQ.	
	<b>INTEGRATING LIFE SKILLS</b>		<b>9</b>
<b>II</b>	4	Intra and Interpersonal relationships	
	5	Capacities, strengths, resources and opportunities- Know Myself-SWOT Analysis	
	7	Goal setting- Personal – Long term and short-term goals, and social goals	
	8	Morals,Values and Ethics: Integrity, Civic Virtue, Resp ect for Others, Living Peacefully. Caring, Sharing, Honesty, Courage, Valuing Time, Time management, Cooperation, Commitment, Empathy, Self-Confidence, Character, Spirituality, Avoiding Procrastination, Sense of Ethics.	
<b>III</b>	<b>LIFE SKILLS IN EVERYDAY LIFE</b>		<b>9</b>
	9	Self-awareness: definition, need for self-awareness; Coping With Stress and Emotions, Human Values, tools and techniques of SA: questionnaires, jo urnaling, reflective questions, meditation, mindfulness, psychometric tests, feedback.	



	10	StressManagement: Stress, reasons and effects, identifying stress, stress diaries, the four A's of stress management, techniques, Approaches: action-oriented, emotion-oriented, acceptance-oriented, resilience, Gratitude Training,	
	11	Coping with emotions: Identifying and managing emotions, harmful ways of dealing with emotions, PATH method, and relaxation techniques.	
<b>IV</b>	<b>GROUP SKILLS</b>		
	12	Group and Team Dynamics: Introduction to Groups: Composition, formation, Cycle, thinking, Clarifying expectations, Problem-Solving, Consensus, Dynamics techniques, Group vs Team, Team Dynamics, Virtual Teams.	
	13	Managing team performance and managing conflicts, Intrapreneurship.	
<b>V</b>	<b>RELATED EXPERIENCE</b>		
	14	Organising a debate on a topic of social development.	
	15	Miming- acting without words using gestures,signs, physical movements, and facial expressions. Any social issue can be enacted.	
	16	Story Telling- Telling of narratives with a particular theme, based on actual events.	

**References:**

1. Shiv Khera, “You Can Win”, Macmillan Books, New York, 2003.
2. Barun K. Mitra, “Personality Development & Soft Skills”, Oxford Publishers, Third impression,2017.
3. ICT Academy of Kerala, "Life Skills for Engineers", McGraw Hill Education (India) Private Ltd.,2016.
4. Caruso, D. R. and Salovey P, “The Emotionally Intelligent Manager: How to Develop and Use the Four Key Emotional Skills of Leadership”, John Wiley & Sons, 2004.
5. Kalyana, “Soft Skill for Managers”; First Edition; Wiley Publishing Ltd, 2015.
6. Larry James, “The First Book of Life Skills”; First Edition, Embassy Books, 2016.
7. Handbook of activities on life skills- American India Foundation, 2018, American India Foundation.

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO/PO addressed
CO-1	Define and Identify different life skills required in personal and professional life	U	PSO-1
CO-2	Develop an awareness of the self and apply well-defined techniques to cope with emotions and stress.	R, U	PSO-1
CO-3	Explain the basic mechanics of effective communication and demonstrate these through presentations	Ap	PSO-2
CO-4	Take part in group discussions	Ap	PSO-1 PSO-2
CO-5	Use appropriate thinking and problem solving techniques to solve new problems	An,E	PSO-2
CO-6	Understand the basics of teamwork and leadership	An,E	PSO-2

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Lifeskill Training Credits: 3:0:0  
(Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	CO-1	PO-1,6	U	F, C	L	
2	CO-2	PO 1,4	R, U	F	L	
3	CO-3	PO 6,8	Ap	F, C	L	
4	CO-4	PO 3,5,6,8	Ap	F	L	P
5	CO-5	PO 2,3	An, E	F		P
6	CO-6	2,4,5	An, E	F, C		P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O 1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	P O 3	PO 4	PO 5	PO 6	PO 7	PO 8
<b>CO 1</b>	1	-	-	-	-	-	-	1	-	-	-	-	1	-	-
<b>CO 2</b>	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-
<b>CO 3</b>	1	1	-	-	-	-	-	-	-	-	-	-	1	-	1
<b>CO 4</b>		1	-	-	-	-	-	-	-	1	-	1	1	-	1
<b>CO 5</b>		1	-	-	-	-	-	-	1	1	-	-	-	-	-
<b>CO 6</b>		1	-	-	-	-	-	-	1	-	-	-	-	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4		✓		✓
CO 5		✓		✓
CO 6			✓	

**References:**

1. Shiv Khera, “You Can Win” , Macmillan Books, New York, 2003.
2. Barun K. Mitra, “Personality Development & Soft Skills”, Oxford Publishers, Third impression,2017.
3. ICT Academy of Kerala, "Life Skills for Engineers", McGraw Hill Education (India) Private Ltd.,2016
4. Caruso, D. R. and Salovey P, “The Emotionally Intelligent Manager: How to Develop and Use the Four Key Emotional Skills of Leadership”, John Wiley & Sons, 2004.
5. Kalyana, “Soft Skill for Managers”; First Edition; Wiley Publishing Ltd, 2015.
6. Larry James, “The First Book of Life Skills”; First Edition, Embassy Books, 2016.
7. Handbook of activities on life skills- American India Foundation, 2018, American India Foundation.



## University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK1MDCHSC101</b>				
Course Title	<b>NUTRITION IN COSMETOLOGY</b>				
Type of Course	<b>MDC</b>				
Semester	I				
Academic Level	100-199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3	-	-	3
Pre-requisite					
Course Summary	This course explores the intersection of food, nutrition, and beauty, focusing on the role of dietary habits in promoting healthy skin, hair, and overall appearance. Students will examine the science behind various nutrients and their effects on skin health, hair growth, and nail strength. Practical applications of dietary recommendations for enhancing beauty and addressing common cosmetic concerns will be emphasized.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>MODULE- 1</b>		<b>15</b>
	1	<b>Introduction to Food &amp; Nutrition cosmetology-</b> Understanding the concept of beauty from a holistic perspective	
	2	<b>Understanding Beauty Holistically-</b> Beauty as physical appearance. <b>Factors</b> such as nutrition, hydration, sleep quality, stress management, and overall lifestyle choices, physical, mental, and emotional health in achieving true beauty.	

	3	<b>Exploring Cultural and Societal Perceptions of Beauty</b> -Beauty standards vary across cultures and societies,media representation, body image ideals, and the impact of social media on beauty standards.	
	4	<b>Beauty Nutritionists</b> -Role and responsibilities, Qualifications and Training, Skills and Attributes	
<b>II</b>	<b>MODULE II – THE SCIENCE OF SKIN HEALTH</b>		<b>15</b>
	5	<b>Anatomy and physiology of skin</b> -Layers of the Skin- epidermis, dermis, and subcutaneous tissue Cell Types: keratinocytes, melanocytes, fibroblasts, and immune cells. Skin types	
	6	<b>Nutrients Essential for Skin Health</b> - Vitamin A ,C and E, Minerals - selenium and zinc ,antioxidants - polyphenols and carotenoids - Role in promoting beauty and health	
	7	<b>Dietary Habits and Skin Conditions</b> Impact of diet on common skin concerns: <b>Acne</b> - relationship between dietary factors and acne development, the role of high glycemic index foods, dairy products, and chocolate, dietary recommendations, low-glycemic diet, reducing dairy intake, and incorporating anti-inflammatory foods. <b>Eczema-Aging</b> -Role of dietary factors in skin aging, including oxidative stress, inflammation, and collagen degradation. <b>Role of hydration and inflammation in skin health</b> -importance of adequate hydration, impact of dehydration, recommendations - dietary intake of water-rich foods, hydration strategies, and skincare practices.	
<b>III</b>	<b>MODULE III NUTRITION FOR HEALTHY HAIR AND NAIL</b>		<b>15</b>
	8	<b>Hair Structure and Growth Cycle:</b> Anagen Phase, Catagen Phase, Telogen Phase	
	9	<b>Nutrients Important for Hair Growth and Strength:</b> Protein, Biotin and Iron	
	10	<b>Addressing Hair Loss and Scalp Health</b> -Genetic Factors (Androgenetic Alopecia), Hormonal Imbalances, Nutritional Deficiencies-iron, zinc, biotin, vitamin D and essential fatty acids	
	11	<b>Dietary and Lifestyle Strategies for Promoting Scalp Health and Hair Growth</b> -Scalp Care and Hygiene, Stress Management and Lifestyle Factors, Nutritional Support for Hair Growth:	
	12	<b>Nourishing Nails and Cuticles</b> -Anatomy of the nail-nail plate, nail bed, nail matrix, lunula, and cuticle (eponychium). Nutritional factors affecting nail strength and brittleness	

IV	<b>MODULE III ANTI AGEING NUTRITION</b>		<b>15</b>
	13	<b>Superfoods for Beauty</b> -Exploration of nutrient-rich foods with beauty-enhancing properties: Berries, Greens, Fatty fish, Nuts and seeds. avocado .green tea. Greek yogurt, sweet potatoes <b>Incorporating superfoods into daily diets for radiant skin and hair</b> - practical tips and recipe ideas ,meal preparation techniques such as steaming, sautéing, roasting, and blending to retain the nutrients and flavors of superfoods. <b>Eating the anti ageing rainbow</b>	
	14	<b>Personalized Beauty Nutrition Plans</b> -Practical application of nutritional principles to individualized dietary plans Developing holistic lifestyle recommendations for optimal cosmetic health	
V	<b>PRACTICUM (Any one )</b>		<b>15</b>
	15	<b>Assessment of Dietary Skin-Ageing Index (DSAI)</b> :is a tool used to assess the impact of dietary habits on skin aging and overall skin health.	
	16	Home remedies for skin problems Home remedies for hair and nail problems	
	17	Case studies and Research trends in food cosmetology	

### COURSE OUTCOMES

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the role of nutrition in promoting health, as well as its impact on overall cosmetic appearance and vitality.	U	PSO-1,2
CO-2	Develop practical skills in applying nutritional strategies and dietary interventions to address common cosmetic concerns	Ap	PSO-5
CO-3	Design personalized nutrition plans for cosmetic health and wellness.	C	PSO-5
CO-4	Recognize and respect cultural, ethnic, and individual differences to promote inclusivity and cultural sensitivity.	Ap	PSO-7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 3:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand the role of nutrition in promoting health, as well as its impact on overall cosmetic appearance and vitality	PSO-1, PSO-2	U	F, C	L	
CO-2	Develop practical skills in applying nutritional strategies and dietary interventions to address common cosmetic concerns	PSO-5	Ap	P	L	P
CO-3	Design personalized nutrition plans for cosmetic health and wellness	PSO5	C	P	L	P
CO-4	Recognize and respect cultural, ethnic, and individual differences to promote inclusivity and cultural sensitivity.	PSO-7	Ap	F	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**



**Mapping of COs with PSOs and POs :**

	PS O1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	1		-	-	-	-		2						
CO 2	2	3	-	-	-	-				3				
CO 3	-	-	1	-	-	-						3		
CO 4	-	-	2	3	-	-				2			3	

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4				✓

**REFERENCES –**

1. Dosal, J., & Ceresnie, M. (2021). Dietary Modifications for Acne and Rosacea. *Integrative Dermatology: Practical Applications in Acne and Rosacea*, 137-163.
2. Hart, J. (2014). *Eat pretty: Nutrition for beauty, inside and out*. Chronicle Books.
3. Marini, A., & Krutmann, J. (2015). Beauty from the inside: Nutrition and skin ageing. *Anti-ageing nutrients: Evidence-based prevention of age-associated diseases*, 299-314.
4. Piccardi, N., & Manissier, P. (2009). Nutrition and nutritional supplementation: Impact on skin health and beauty. *Dermato-endocrinology*, 1(5), 271-274.
5. Sardana, K., & Sachdeva, S. (2022). Role of nutritional supplements in selected dermatological disorders: A review. *Journal of Cosmetic Dermatology*, 21(1), 85-98.
6. Solway, J., McBride, M., Haq, F., Abdul, W., & Miller, R. (2020). Diet and dermatology: the role of a whole-food, plant-based diet in preventing and reversing skin aging—a review. *The Journal of clinical and aesthetic dermatology*, 13(5), 38.
7. Tabor, A., & Blair, R. M. (Eds.). (2009). *Nutritional cosmetics: beauty from within*. William Andrew.

# **SEMESTER 2**



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK2DSCHSC100</b>				
Course Title	<b>FUNDAMENTALS OF SUSTAINABLE LIVING II</b>				
Type of Course	<b>DSC</b>				
Semester	II				
Academic Level	100-199				
Course Details	Credit	Lecture per week	Tutorial Per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites					
Course Summary	<p>This course builds upon the foundational concepts of sustainable living introduced in Fundamentals of Sustainable Living I. Students will delve into the basic concepts of Child development and Extension and Communication. It will lay the foundation for building upon sustainable practices in Child Development and Extension and Communication. Through a combination of theoretical learning and practical applications, students will develop a comprehensive understanding of sustainable living principles and how they can be integrated into everyday life.</p>				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>INTRODUCTION TO CHILD DEVELOPMENT</b>		<b>12</b>
	1	Child Development- Significance of Child Development.	
	2	Scope of Child development in contemporary society.	
	3	Introduction to Stages of development.	
<b>II</b>	<b>BRIEF OVERVIEW OF GROWTH AND DEVELOPMENT</b>		<b>12</b>
	4	Concept of Growth and Development.	
	5	Different Domains of Child Development.	
	6	Parenting styles and effects.	

<b>III</b>	<b>OVERVIEW OF EXTENSION &amp; COMMUNICATION</b>		<b>12</b>
	7	Concept of Communication, Extension and Development and its interconnection	
	8	Importance of Home Science Extension- Philosophy and Principles of Extension Education, Role of Home Science Extension for National Development	
	9	Process of communication, Key elements, Models, Types and its classification	
<b>IV</b>	<b>COMMUNICATION SKILLS</b>		<b>12</b>
	10	Verbal Skills- Public speaking, individual and group presentations, group discussion and interview.	
	11	Non-Verbal Skills- Role of body language, facial expressions, posture, proxemics.	
	12	7 C's of Effective Communication	
	13	Barriers in Communication	
<b>V</b>	<b>RELATED ACTIVITIES</b>		<b>12</b>
	14	One day participation in the activities of a childcare centre or child development centre and report the experience	
	15	Experience in using a growth chart and milestone assessment.	
	16	Conduct Impromptu Speeches, group presentations, personal interview, debate among the students	
	17	Hands on practice with different types of public speaking	
	18	Exercises in effective listening skills Exercises on building empathy for effective communication	
	19	Conduct a visit to a neighbouring community and do a survey to understand the social and developmental problems faced by them.	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand core concepts and significance of child development study.	R, U	PSO-1 PSO-2
CO-2	Gain basic knowledge of domains of development and identify the role of parenting style on behaviour formation of children.	R, U	PSO-1 PSO-2
CO-3	Understand the role & importance of extension and communication in the discipline of home science & development of the society	R, U	PSO-1 PSO-5
CO-4	Inculcate the soft skills in theoretical and practical ways to develop effective communication skills for community outreach programmes	U, Ap,	PSO-1 PSO-5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/P SO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Understand core concepts and significance of child development study.	PO1 PSO1 PSO2	R, U	F, C	L	
2	Gain basic knowledge of domains of development and identify the role of parenting style on behaviour formation of children.	PO1 PSO1 PSO2	R,U,	F,C	L	
3	Understand the role & importance of extension and communication in the discipline of home science & development of the society	PO4 PO6 PSO1 PSO5	R,U	F, C	L	

4	Inculcate the soft skills in theoretical and practical ways to develop effective communication skills for community outreach programmes	PO4 PO6 PSO1 PSO5	U, Ap,	P, M	L	P
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**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PO1	PO2	PO3	PO4	PO5	PO 6	PO 7	PO 8
CO 1	2	2						2							
CO 2	2	2						2							
CO 3	-	-	-	2		2					2		2		
CO 4	-	-	-	2	-	2	-				2		2		

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓

**REFERENCES:**

1. Berk. L.E, (2014), Child development, PHI learning Ltd, Newdelhi.
2. Devadas R.P and Jeya. N, (Reprinted 2010), A text book on Child Development, Mac Millan India Ltd.Delhi.
3. Hurlock. E.B, (2017), Child Development, 6<sup>th</sup> edition (Indian edition), Mc Graw Hill Education, New York.
4. Santrock, J.W, (2017), Child development, 13<sup>th</sup> edition, McGraw Hill education, New York.
5. Suriakanthi A, (2010), Child development: An introduction, 5th edition, Kavitha publications, Gandhigram. Adler, R. B., Rosenfeld, L. B., & Proctor, R. F. (2015). "Interplay: The Process of Interpersonal Communication."
6. Covey, S. R. (2004). "The 7 Habits of Highly Effective People: Powerful Lessons in Personal Change."
7. Sithara Balan, Sunanda Chande (2019): Extension Education and Communication- Concept and Directions, Modern Book House, Thiruvananthapuram
8. Dubey, VK , Indira Bishnoi (2018) Extension Education and Communication; Newage International (P) Ltd

**WEB RESOURCES:**

- <https://raisingchildren.net.au.discipline-webmd>
- <https://www.nagc.org>





**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK2DSCHSC101</b>				
Course Title	<b>SOCIAL MEDIA MARKETING</b>				
Type of Course	<b>DSC</b>				
Semester	II				
Academic Level	100 - 199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3		2	5
Pre-requisites	None				
Course Summary	This course is designed to equip the learners with the essential skills and knowledge needed to harness the power of social media for effective marketing campaigns. It also helps to gain insights into the major social media platforms, their unique features, and their respective audiences and how to use social media platform effectively for personal as well as business viewpoint. The course helps to master the art of social media advertising to reach a wider audience and drive conversions and explore the different types of ads available on various platforms, and learn how to create and optimize campaigns for maximum reach , return on investment and publicity.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>BASICS OF SOCIAL MEDIA COMMUNICATION</b>		<b>9</b>
	1	Communication- meaning, definition, models, and elements	
	2	Basic Communication models, 7C's of Effective Communication, Concept of target audience	
	3	Social Media Trend Analysis	

<b>II</b>	<b>UNDERSTANDING SOCIAL MEDIA</b>		<b>9</b>
	4	Basic concepts of social media applications, its importance, rules and regulations,	
	5	Cyber ethics and cyber crimes	
	6	Difference between organic and paid social media.	
	7	Ethics in social media	
<b>III</b>	<b>CONTENT DEVELOPMENT FOR SOCIAL MEDIA</b>		<b>9</b>
	8	Introduction to Facebook, X, Threads, Instagram, LinkedIn, You tube, Blog, Snapchat and Podcast.	
	9	Basic photography skills	
	10	Introduction to video editing apps- Kinemaster, Open Shot, Filmora, Inshot.	
	11	Creative content writing for social media- Use of language and writing skills, factors influencing the development and choice of content.	
<b>IV</b>	<b>SOCIAL MEDIA FUNCTIONING AND STRATEGY</b>		<b>9</b>
	12	Difference between page and account. Setting up social media pages.	
	13	Algorithm of various social media platforms.	
	14	Social Media Marketing tools, Brand creation and media analysis	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>9</b>
	15	Setting up of individual social media platforms/ pages in Fcebook/Instagram/ LinkedIn/X/You Tube/ Personal Blogs	
	16	Content creation using different tools – Audio/ Visual/ Audio Visuals for the above platforms.	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the principles and concepts of Social media marketing.	R	PSO-1
CO-2	Analyze consumer behavior and social media trends to inform social marketing strategies.	U, An	PSO-4
CO-3	Demonstrate proficiency in using social media marketing tools and platforms.	Ap	PSO-4 PSO-5
CO-4	Develop and implement socialmedia marketing campaigns, including content creation and audience engagement.	Ap, C	PSO-4 PSO-5
CO-5	Evaluate the effectiveness of socialmedia marketing campaigns using metrics and analytics.	E	PSO-2 PSO-4 PSO-5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: SOCIAL MEDIA MARKETING Credits: 3:0:0**

**(Lecture:3 Tutorial: 0 Practical:0)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	CO-1	PSO-1	R	F	L	
2	CO-2	PSO-4	U, An	F,C	L	
3	CO-3	PSO-4 PSO-5	Ap	C,P	L	P
4	CO-4	PSO-4 PSO-5	Ap, C	C,P	L	P
5	CO-5	PSO-2 PSO-4 PSO-5	E	C,P	L	P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PSO 2	PSO 3	PSO4	PS O5	PSO 6	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO 1	1											1	
CO 2		1	1		1								
CO 3			1		1					1			1
CO 4			1		1			1	1	1			2
CO 5			1		2			2	1	1			1

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓			✓
CO 4	✓	✓		✓
CO 5	✓	✓		✓

**REFERENCES**

1. Practical Web Analytics for User Experience, How Analytics Can Help You Understand Your Users, By Michael Beasley · 2013.
2. Advanced Web Metrics with Google Analytics By Brian Clifton · 2010
3. Digital Marketing –Kamat and Kamat-Himalaya
4. Marketing Strategies for Engaging the Digital Generation, D. Ryan,
5. Digital Marketing, V. Ahuja, Oxford University Press
6. Digital Marketing, S.Gupta, McGraw-Hill
7. Quick win Digital Marketing, H. Annmarie , A. Joanna, Paperback edition



University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK2DSCHSC102				
Course Title	FASHION AND IMAGE STYLING				
Type of Course	DSC				
Semester	II				
Academic Level	100-199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites					
Course Summary	<p>This course offers a comprehensive exploration into personal style, image building and wardrobe management. It includes how dress affects behaviour and the impact of clothing on one's personal and professional image, emphasizing nonverbal and verbal communication. The curriculum analyses physical traits and style, including body proportions, types and the significance of colour and face shape. Students will delve into fashion designing principles, colour theory, dressing for different occasions, and accessorizing, enhancing their ability to create harmonious outfits. The course covers wardrobe management and maintenance, teaching strategies for wardrobe optimization, organization and garment care, culminating in practical experiences like presenting styling plans and conducting a complete image makeover.</p>				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
I	<b>PERSONAL STYLE AND IMAGE BUILDING</b>		<b>12</b>
	1	Introduction to Personal style and image building.	
	2	The impact of clothing on personal and professional image	
	3	Nonverbal Communication: First impression	
	4	Verbal Communication: Self-Concept & Image	

<b>II</b>	<b>ANALYSIS OF PHYSICAL TRAITS AND STYLE</b>		<b>12</b>
	5	Body proportion	
	6	Body types and problems	
	7	Shape of face and colour choice	
	8	Personality	
<b>III</b>	<b>FASHION DESIGNING AND DRESSING CONCEPTS</b>		<b>12</b>
	9	Effects of design elements and principles on clothing	
	10	Colour theory and its application in dressing	
	11	Dressing up according to season and occasion	
	12	The impact of clothing on personal and professional image	
	13	Event-specific dressing	
	14	Accessorizing - Importance, Common styles of Footwear, Handbags, Jewellery and their coordination with clothing.	
<b>IV</b>	<b>WARDROBE MANAGEMENT AND MAINTENANCE</b>		<b>12</b>
	15	Steps in Wardrobe analysis and planning	
	16	Sustainability and Optimisation in wardrobe - Buying quality over quantity, recycling and upcycling	
	17	Organizing and maintaining a functional wardrobe	
	18	Daily and periodic care and cleaning of clothing -Wet and Dry	
	19	Tips of Garment maintenance	
<b>V</b>	<b>RELATED ACTIVITIES</b>		<b>12</b>
	20	Presentation of a styling plan that includes suitable clothing style, colours and accessories.	
	21	Design a wardrobe plan for different seasons and occasions, focusing on the effective use of design elements and principles.	
	22	Wardrobe analysis for themselves and plan optimization strategies	
	23	Complete Image Makeover and presentation of before-and-after analysis.	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Analyse different body types and identify problem areas.	An	PSO-5
CO-2	Evaluate personality and personal style preferences	E	PSO-2,3
CO-3	Create wardrobe plans and care schedules	C	PSO-1,7
CO-4	Evaluate ways of taking care of and storing garments effectively	E	PSO-1,2

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: FASHION AND IMAGE STYLING**

**Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Analyse different body types and identify problem areas.	PSO-5	An	C	L	P
CO-2	Evaluate personality and personal style preferences	PSO-2,3	E	C	L	P
CO-3	Create wardrobe plans and care schedules	PSO-1,7	C	P	L	P
CO-4	Evaluate ways of taking care of and storing garments effectively	PSO-1,2	E	P	L	P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**



**Mapping of COs with PSOs and POs :**

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	-	-	-	-	3	-	-	2	2	3	-	-	-	-	-
CO 2	-	1	2	-	-	-	-	1		3	-	-	2	1	-
CO 3	2	-	-	-	-	-	2	-	-	2	-	-	3	-	1
CO 4	3	1	-	-	-	-		1	3	2	-	-	-	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4	✓	✓		✓

**REFERENCES :**

1. Frings, G. (2007). *Fashion: From concept to consumer* (9th ed.). Prentice Hall.
2. Funder, D. C. (2001). *The personality puzzle* (2nd ed.). W.W. Norton.
3. Marshall, S., Jackson, H., & Stanley, S. (2011). *Individuality in clothing selection and personal appearance* (7th ed.). Pearson.
4. Phares, J. E. (1991). *Introduction to Personality* (3rd ed.). Harper Collins.
5. Rasband, J. (2001). *Wardrobe strategies for Women* (Student ed.). Fairchild Books. ISBN-10: 1563672596.
6. Romano, C. (2002). *Plan your Wardrobe*. In *Plan your wardrobe* (pp. 23-59). New Holland Publication.



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK2MDCHSC100</b>				
Course Title	<b>MENTAL HEALTH AND ADOLESCENT COUNSELLING</b>				
Type of Course	<b>MDC</b>				
Semester	II				
Academic Level	100- 199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites					
Course Summary	This course provides an overview of mental health and counselling, focusing on theories, practices, and interventions used in the field of mental health. Students will explore various mental health disorders, counselling techniques, ethical considerations, and multicultural perspectives in mental health counselling.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>MENTAL HEALTH AND RISK FACTORS</b>		<b>9</b>
	1	Concept and importance of mental health, National Mental Health Policy of India, Community Mental Health Need and programs.	
	2	Child Risk Factors	
	3	Parental/Family Risk Factors	
	4	Social Environmental Risk Factors	

<b>II</b>	<b>MENTAL HEALTH ISSUES IN ADOLESCENTS</b>		<b>9</b>
	5	Anxiety Disorder, Mood Swings, Suicide, Academic Pressure, Peer pressure, Internet and social media addiction.	
	6	Eating Disorders, Substance abuse, Stress	
	7	Bullying, Sexual abuse	
	8	Issues related to sexual orientation	
<b>III</b>	<b>ADOLESCENT COUNSELLING</b>		<b>9</b>
	9	Identity formation and identity crisis in Adolescents.	
	10	Definition and Steps in Counselling, Personnels in Counselling, Characteristics of Counsellor	
	11	Understanding Adolescents and the Need for Adolescent Counselling	
	12	How Adolescents can be helped through community	
<b>IV</b>	<b>COUNSELLING TECHNIQUES</b>		<b>9</b>
	13	Behaviour Modification and Systematic Desensitization	
	14	Psychotherapy-Transactional Analysis	
	15	Person-cantered therapy	
	16	Cognitive Behaviour Modification	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>9</b>
	17	Visit a counselling Centre	
	18	Organise a talk to understand the present generation	
	19	Discuss different adolescent issues and conduct Role Play classroom Counselling	
	20	Study on common adolescent problems / or any common problems faced by a girl/woman	

**COURSE OUTCOMES**

No.	Upon completion of the course, the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand mental health and the importance of mental health	U	PSO- 2
CO-2	Critically evaluate the risk factors for mental health	E	PSO-3,5
CO-3	Sensitizing mental health issues among adolescents	U, An	PSO-5,6
CO-4	Create awareness of social issues and problems faced by adolescents	U	PSO-5,7
CO-5	Examine approaches to be followed for adolescent counselling	Ap, An, E	PSO-4,7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand the importance of mental health	PO-1,3 PSO- 2	U	F, C	L	
CO-2	Critically evaluate the risk factors for mental health	PO-1,4 PSO- 3,5	E	P	L	
CO-3	Sensitizing mental health issues among adolescents	PO-6,8 PSO- 5,6	U, An	P	L	
CO-4	Create Awareness of social issues and problems faced by adolescents	PO- 1,2,4 PSO- 5,7	U	C, P	L	
CO-5	Examine approaches to be followed for adolescent counselling	PO- 5,6,7 PSO- 4,7	Ap, An, E	P, M	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	P O1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO 1	-	3	-	-	-	-	-	2	-	2	-	-	-	-	-
CO 2	-	-	2	-	2	-	-	3	-	-	3	-	-	-	-
CO 3	-	-	-	-	3	2	-	-	-	-	-	-	2	-	3
CO 4	-	-	-	-	2	-	3	2	3	-	2	-	-	-	-
CO 5	-	-	-	2	-	-	2	-	-	-	-	2	3	2	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Discussion / Seminar
- Midterm Exam
- Case study analysis
- Final Exam

**Mapping of COs to Assessment Rubrics:**

	Internal Exam	Assignment	Case study analysis	End Semester Examinations
CO 1	✓			✓
CO 2	✓	✓	✓	✓
CO 3	✓	✓	✓	✓
CO 4	✓	✓		✓
CO 5	✓		✓	✓

**Reference Books:**

1. Vernon, A. (2009). *Counseling children and adolescents*, (4th Ed.). Denver: Love Publishing Company. Axline, Virginia. (1964). *Dibs In Search of Self*. New York: Ballentine.
2. American Psychological Association (2009). *Publication manual of the American Psychological Association* (6th ed.) Washington
3. Barry, P.D. (1990). *Mental Health and Mental Illness* (4th ed.) Philadelphia: J.B. Lippincott Co
4. Carter, F & Cheesman, P. (1988). *Anxiety in Childhood & Adolescence – Encouraging Self-help through Relaxation Training*. London: Croom helm.
5. Gregoire, J., & Jungers, C. M. (2007). *The counselor’s companion: What every beginning counselor needs to know*. (1st ed.). New York, NY: Routledge. ISBN: 978-0805856842
6. Rosenthal, H. G. (2008). *Encyclopaedia of counseling: Master review and tutorial for the national counselor examination and state exams*. (3rd ed.). New York, NY: Routledge. ISBN: 978- 0415958622
7. Goleman, D. (1996). *Emotional Intelligence*. N.Y: Bantam Books.
8. Gopalakrishnan, N. (1994). *Mental health and You*. Mumbai: Popular Prakashan.
9. Pestongee, D.M. (1992). *Stress and Coping: The Indian Experience*. New Delhi: Sage Publications.

**Web Resources:**

1. <https://psychcentral.com/lib/types-of-psychological-testing#what-is-it>
2. <https://www.britannica.com/science/psychological-testing>
3. <https://www.ncbi.nlm.nih.gov/books/NBK305233/>



University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK2MDCHSC101				
Course Title	CREATIVE ART FOR INTERIORS				
Type of Course	MDC				
Semester	II				
Academic Level	100-199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites					
Course Summary	Creative art for Interiors offers a comprehensive exploration of functional and aesthetic application of art within interior spaces. In the framework of interior decoration, this course introduces students to the concepts and methods of art and craft. It aims to equip students with a fundamental understanding of various artistic techniques, materials, and their application in enhancing the aesthetics and functionality of interior spaces. The curriculum also promotes sustainable practices like upcycling.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>APPLIED ARTS FOR FUNCTION AND AESTHETICS</b>		<b>9</b>
	1	Significance of Art and Craft in Interiors	
	2	Significance of Accessories	
	3	Classification of Accessories	
	4	Selection and Arrangement of Accessories	



<b>II</b>	<b>FUNDAMENTALS OF DESIGN CREATION</b>		<b>9</b>
	5	Elements and Principles of Design	
	6	Basics of Colour Theory and its application in interior spaces	
	7	Introduction of Art and Craft materials and tools in Applied arts	
<b>III</b>	<b>ARTISTIC TECHNIQUES FOR INTERIOR SPACES</b>		<b>9</b>
	8	Familiarisation of Two-Dimensional Art Forms	
	9	2D Design drawing	
	10	Painting Techniques - Filling, Shading, Dry Brush, Stencilling, Spraying, Sponging	
	11	Painting - Fabric Painting, Worli and Madhubani	
	12	Decoupage	
	13	Familiarisation Three-Dimensional Art Forms	
	14	Clay sculpture and Three-Dimensional Art Works	
<b>IV</b>	<b>SUSTAINABLE ART AND CRAFT PRACTICES</b>		<b>9</b>
	15	Eco-friendly materials and techniques	
	16	Upcycling and recycling in Art and Craft projects - Bottle Art, Paper Mache work	
<b>V</b>	<b>RELATED EXPERIENCES (CHOOSE ANY FOUR)</b>		<b>9</b>
	17	Virtual tour to Museum, Galleries and Design studios	
	18	Creation and Evaluation of Art forms	
	19	Interviews with Contemporary artists	
	20	Field visits	
	21	Collect pictures/ make innovative presentations for the basic elements of design	
	22	Motif creation and application	
	23	Create a simple design and apply any one colour harmony	
	24	Submission of an art work by the application of principles of design and using eco-friendly materials	
	25	Making paper bags with messages to promote sustainability	
	26	Submission of Portfolio	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the role of Art and Craft in modern interior design	U	PSO-1
CO-2	Identify and apply various artistic techniques and materials suitable for interior spaces.	U, Ap	PSO-5,6
CO-3	Create original art and craft projects that enhance the aesthetic and functional aspects of interior environments.	C	PSO-6

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 3:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
CO-1	Understand the role of Art and Craft in modern interior design	PSO-1	U		C	
CO-2	Identify and apply various artistic techniques and materials suitable for interior spaces.	PSO-5,6	U, Ap		P	
CO-3	Create original art and craft projects that enhance the aesthetic and functional aspects of interior environments.	PSO-6	C		M	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	P O1	P O2	P O3	P O4	P O5	P O6	P O7	P O8
<b>CO 1</b>	3	-	-	-	-	-	-	2	-	3	-	-	-	-	3
<b>CO 2</b>	-	-	-	-	2	1	-	2		3	-	-	1	2	-
<b>CO 3</b>	-	-	-	-	-	3	-	3	-	2	-	-	2	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓	✓		✓
CO 3	✓		✓	✓

**References :**

1. Geoffroy, A., & Migdal, M. (2011). World famous caricatures collection & drawing.
2. Oei, L., & Kegel, D. E. (2002). The elements of design: Rediscovering colours, textures, forms, and shapes. Thames and Hudson.
3. Pile, J. (2003). Interior design (3rd ed.). Pearson.
4. Piotrowski, C. (2004). Becoming an interior designer. John Wiley & Sons.
5. Seymour, P. (2003). The artist's handbook – A complete professional guide to materials and techniques. Arcturus Publishing Limited.

# **SEMESTER 3**



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK3DSCHSC200</b>				
Course Title	<b>CHILD DEVELOPMENT</b>				
Type of Course	<b>DSC</b>				
Semester	III				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2 hours	5
Pre-requisites					
Course Summary	Child Development explores the physical, cognitive, emotional, and social development of children from infancy through adolescence. This course will examine the major theories and research findings in the field of child development and apply them to real-world scenarios. Students will gain a comprehensive understanding of the factors that influence children's growth and development.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>PRENATAL DEVELOPMENT AND CARE</b>		<b>15</b>
	1	Prenatal Development- Conception, Significance, stages of prenatal development, factors influencing prenatal development.	
	2	Process of birth, types of birth -normal, caesarean, breech and transverse. Pre-mature and LBW babies.	
	3	The neonate- characteristics, abilities and adjustment, reflexes, APGAR test.	
	4	Breastfeeding- Advantages and disadvantages. Immunization.	

<b>II</b>	<b>DEVELOPMENTAL THEORIES (INFANCY TO ADOLESCENCE)</b>		<b>15</b>
	5	Stages of- Erick Erickson's Psychosocial theory.	
	6	Stages of- Piaget's Cognitive theory.	
	7	Gardner's theory of Multiple Intelligence.	
	8	Learning theories: Bandura's social learning theory.	
<b>III</b>	<b>PRESCHOOL EDUCATION AND BEHAVIOUR PROBLEMS</b>		<b>15</b>
	9	Preschool: Objectives, personnel, records, Set-up and management.	
	10	ICDS: Introduction, Objectives, Services, roles and responsibilities of personnel.	
	11	Behaviour Problems: Thump sucking, enuresis, temper tantrum, Juvenile Delinquency.	
	12	ODD (Oppositional Distant Disorder), OCD (Obsessive-Compulsive Disorder), ADHD (Attention Deficit Hyperactivity Disorder), Anxiety Disorder, Defiant/Conduct Disorder.	
<b>IV</b>	<b>EXCEPTIONAL CHILDREN</b>		<b>15</b>
	13	Children with Special Needs: Physically handicapped, hearing impaired, visually impaired (characteristics, causes, prevention, care and treatment).	
	14	AI tool applications in Child Development, Audiometry – pure tone and speech audiometry. Amplification devices, setting up classroom equipment Envision Glasses, OKO AI Capitol.	
	15	Mentally challenged - classification, characteristics, causes, prevention and care.	
	16	Learning disability, characteristics, types, and educational implications.	
	17	Gifted- definition, characteristics, education of the gifted.	
<b>V</b>	<b>PRACTICAL</b>		<b>15</b>
		<b>Any Five</b>	
	18	Visit various Child care centres. Develop a checklist to compare and contrast on the type of curriculum followed and write a report.	
	19	One-day participation in the activities of an Anganwadi and report the experience.	

20	Theme-based programme planning- plan a curriculum based on developmental domains and execute it for preschool children.	
21	Study on common adolescent problems / or any common problems faced by a girl /child/woman – (Interview 10 students)	
22	Discuss the behaviour problems in early childhood in a school preschool set-up (write a case study report) (Visit a nearby preschool)	
23	Market Survey: Make a list of toys and vocational activities suitable for children with problems with physically or mentally challenged children.	
24	Preparation of indigenous low-cost toys	
25	Teaching children a skill / a craft introduces a hobby or any creative work	
26	One day participation in the activities of any one institution for the challenged children.	
27	Socio metric study of children / Adolescence	
28	Make a list exhibit or exhibit Toys, gifts, clothes, first-aid boxes, books, stories songs etc. suitable for each stage of development.	
29	Visit any special school and report on the modes of interventions and assessment of children.	

### COURSE OUTCOMES

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the major theories of child development.	U	PSO-1,5
CO-2	Identify and analyse key developmental milestones from infancy to adolescence.	U, An	PSO-2,3
CO-3	Identify behavioural problems and develop skills in the care and management of children.	U, Ap	PSO-2,6
CO-4	Explore the impact of family, culture and environment on child development.	An, E	PSO-5,6
CO-5	Apply developmental theories to real life situations.	Ap	PSO-4,5,7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**



**Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1.	Understand the major theories of child development.	PO-1 PSO-1,5	U	F, C	L	P
2.	Identify and analyse key developmental milestones from infancy to adolescence.	PO-2,8 PSO-2,3	U, An	C, P	L	P
3.	Identify behavioural problems and develop skills in the care and management of children.	PO-5, 6 PSO-2,6	U, Ap	C, P	L	P
4.	Explore the impact of family, culture and environment on child development.	PO-3,7,8 PSO-5,6	An, E	C, M	L	P
5.	Apply developmental theories to real life situations.	PO-4,8 PSO-4,5,7	Ap	P, M	L	P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs:**

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO 1	2	-	-	-	3	-	-	2	-	-	-	-	-	-	-
CO 2	-	2	2	-	-	-	-	-	1	-	-	-	-	-	3
CO 3	-	3	-	-	-	2	-	-	-	-	-	3	3	-	-
CO 4	-	-	-	-	2	2	-	-	-	3	-	-	-	2	2
CO 5	-	-	-	2	2	-	1	-	-	-	2	-	-	-	2

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/Discussion / Seminar
- Midterm Exam
- Case study Analysis
- Final Exam

**Mapping of COs to Assessment Rubrics:**

	Internal Exam	Assignment	Case study Analysis	End Semester Examinations
CO 1	✓			✓
CO 2	✓		✓	✓
CO 3	✓		✓	✓
CO 4		✓	✓	✓
CO 5		✓		✓

**Reference Books:**

*University of Kerala: Four Year Undergraduate Programme in Home Science 2024*

1. Berk. L.E, (2014), Child Development, PHI learning Ltd, New Delhi.
2. Devadas R.P and Jeya. N, (First published 1984, reprinted 2010), A textbook on Child Development, Mac Millan India Ltd. Delhi.
3. Hetherington and Park, (1999), Child psychology: Contemporary viewpoint 5<sup>th</sup> edition, New York: Tata McGraw Hill.
4. Hurlock. E.B, (2017), Child Development, 6th edition (Indian edition), McGraw Hill Education, New York.
5. Hurlock. E.B, (2011), Developmental psychology, Tata McGraw Hill Publishing Company Ltd, New Delhi.
6. Mangal S.K, (2007), Educating exceptional children- an introduction to special education, prentice hall of India, New Delhi.
7. Patterson, C.J, (2009), Infancy and Childhood, International edition, McGraw Hill, New York.
8. Santrock, J.W, (2017), Child Development, 13th edition, McGraw Hill Education, New York.
9. Shaffer, D.R. and Kipp, K, (2007), Developmental psychology: Childhood and Adolescence, 7th edition, Thomson Wadsworth, Australia.
10. Singh, A, (2015), Foundation of Human Development: A life span approach, Orient Black Swan, New Delhi.
11. Suriakanthi A, (1991), Child development: An introduction, 2nd edition, Kavitha publications, Gandhigram.
12. Swaminathan, M, (1998), the first five years: A critical perspective on early childhood care and education in India. New Delhi.

**Web Resources:**

1. <https://www.mentalhealth.gov.behaviour-problems>
2. <https://raisingchildren.net.au.discipline-webmd>
3. <https://www.nagc.org>
4. <https://lhblind.org/ai-powered-tools-for-people-who-are-blind/#:~:text=OKO%20AI%20Copilot%20for%20the%20Blind%20is%20an%20AI%2Ddriven,for%20individuals%20who%20are%20blind.>



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK3DSCHSC201</b>				
Course Title	<b>FURNISHING IN INTERIORS</b>				
Type of Course	<b>DSC</b>				
Semester	VI				
Academic Level	300 – 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites	1. 2. UK102DSEHSC				
Course Summary	This course is designed to help students understand the concept of interior furnishing and to disseminate knowledge on how to make a wise selection of fabrics for furnishing the interiors for inmates' rest, peace, and comfort. Students learn about consumers fabric preferences as well as about the types of furnishings and how to care for and maintain them.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>SELECTION OF FABRICS IN INTERIOR DESIGN</b>		<b>15</b>
	1	Importance	
	2	Different Types of Furnishing	
	3	Factors to be considered in the selection of fabrics for furnishings	
	4	Types of fabrics used in interiors	
	5	Care and storage of fabrics	

<b>II</b>	<b>INTRODUCTION TO FLOOR COVERINGS</b>		<b>15</b>
	6	Rugs	
	7	Carpets	
	8	Cushion pads	
	9	Use and care	
<b>III</b>	<b>WINDOW TREATMENT</b>		<b>15</b>
	10	Window treatments- Curtains and draperies	
	11	Window treatments- Blinds, Shutters, Screens, Panels, Shades.	
	12	Functions of curtains	
	13	Choice of Fabric	
	14	Styles of hanging curtains- Tailored, Priscilla, tie back, criss-cross, cafe' tier and cottage-set	
	15	Methods of finishing draperies – tucks and pleats	
	16	Decorative curtain heads- top dressing	
	17	Care and maintenance	
<b>IV</b>	<b>HOME DECORATION</b>		<b>15</b>
	18	Choice of Fabric	
	19	Living room- Sofa covers, Types of cushion ,Cushion covers, Upholsteries	
	20	Bed room-Types of bed linen	
	21	Kitchen- Types of kitchen linen	
	22	Table- Types of table linens	
	23	Care and maintenance	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>15</b>
	24	Project development: on Recent Trends In Home Furnishings	
	25	Conduct a survey to analyze the market and consumer preferences of fabrics for soft furnishing	
	26	Prepare an album on the traditional fabrics used in interiors	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitiv Level	PSO addressed
CO-1	Appraise the role of soft furnishings in enhancing and complementing interior design	U,An	PSO-1,2,5
CO -2	Understand the factors to be considered in the selection of fabric for furnishings	U,An	PSO-1,2,5
CO-3	Identify and list out the various soft furnishings used in interiors.	An	PSO-1,2,3
CO-4	Design various curtain styles by implementing the right principles of design	C,Ap	PSO-1,2,5
CO-5	Explore the soft window treatments for interiors	An	PSO-1,2
CO-6	Apply various methods of care and maintenance of fabric	Ap	PSO-1,2,3

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/ PSO	Cognitiv Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Appraise the role of soft furnishings in enhancing and complementing interior design	PSO-1,2,5 PO-1,3	3	F, C,P,M	L,T	
CO -2	Understand the factors to be considered in the selection of fabric for furnishings	PSO-1,2,5 PO-1,3,6	3	F, C,P,M	L,T	
CO-3	Identify and list out the various soft furnishings used in interiors.	PSO-1,2,3 PO-1,3,6	3	F, C,P,M	L,T	

CO-4	Design various curtain styles by implementing the right principles of design	PSO-1,2,5 PO-1,2,3,6	3	F, C,P,M	T	
CO-5	Explore the soft window treatments for interiors	PSO-1,2 PO-1,2,3,6	3	F, C,P,M	T	
CO-6	Apply various methods of care and maintenance of fabric	PSO-1,2,3 PO-1,3,6	3	F, C,P,M	L,T	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS2	PS3	PS4	PS O5	PS O6	PS O7	P1	P O 2	PO 3	PO 4	P O 5	PO 6	PO 7	P O 8
<b>CO 1</b>	3	3	2	-	3	-	1	3	2	2	-	-	3	-	-
<b>CO 2</b>	3	3	2	-	3	-	1	3	3	3	-	-	3	-	-
<b>CO 3</b>	3	3	2	-	3	-	1	3	3	3	-	-	3	-	-
<b>CO 4</b>	3	3	2	-	3	-	1	3	3	3	-	-	3	-	-
<b>CO 5</b>	3	3	-	-	3	-	1	3	3	3	-	-	3	-	-
<b>CO 6</b>	3	3	2	-	3	-		3	2	3	-	-	3	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓	✓	✓
CO 4			✓	✓
CO 5			✓	✓
CO 6			✓	✓



## **References**

1. Clifton.C. et al (1991). The complete Home decorator, Conran Octopus Ltd, London.
2. Levine M (1998). Living rooms, Rockport publishers, USA.
3. Luke. H., (1996). Soft furnishings, New Holland Publishers Ltd, Singapore.
4. Mary Mathews, (1996). Practical Clothing Construction, Part I and Part II, Cosmic Press.
5. Mehta, R.J, (1970) “Masterpieces of Indian Textiles”, B.B Taraporewala& Sons Pvt. Ltd, India.
6. Ostrow.J (2000) Painting rooms , Rockport publishers, USA
7. Philips B, (2000). Hamlyn book of decorating, Octopus publishing Ltd, London.
8. Pizzuto’s. J.J (2010), “Fabric Science”, 9th Edition, Fairchild Books, U.S.A.
9. Wendy Baker · (2009), Complete Book of Curtains, Drapes and Blinds Design Ideas for Every Type of Window, Treatment, Pavilion Books Publishers. ISBN:9781843405054, 1843405059
10. Wilhelmine Van Aerssen, Chris Halsey (2017), From Fibre to Fabric, The Ultimate Guide to Soft Furnishings, Clearview books publisher.
11. Wilhide,E and Copestick,I. (2000). Contemporary decorating, Conran Octopus Ltd., London.



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK3DSCHSC202</b>				
Course Title	<b>NUTRITION THROUGH LIFE CYCLE</b>				
Type of Course	<b>DSC</b>				
Semester	III				
Academic Level	200-299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites					
Course Summary	This course provides a comprehensive exploration of nutrition across the lifespan, from childhood to aging, covering fundamental concepts, meal planning strategies, nutritional needs during different life stages, and practical applications. Students gain a holistic understanding of nutrition across the lifespan, from childhood to aging, enhancing their knowledge base and preparing them for diverse career opportunities in nutrition and healthcare.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>BASIC CONCEPTS IN NUTRITION</b>		<b>15</b>
	1	Basic terms in nutrition-food, health, nutrients, nutritional status, malnutrition	
	2	Macronutrients, micronutrients, nutraceuticals, phytochemicals, antioxidants	
	3	Overview of food groups and their contributions to a balanced diet	
	4	Understanding relationship between food, health & nutrition	

<b>II</b>	<b>MEAL PLANNING</b>		<b>15</b>
	5	Food groups, Balanced diet, Food exchange list, My plate	
	6	Factors effecting meal planning and food related behaviour	
	7	Dietary guidelines for Indians	
<b>III</b>	<b>NUTRITION DURING CHILDHOOD YEARS</b>		<b>15</b>
	8	Growth & development, macro and micronutrient requirements for infants, preschool(1-6years), school-age children (7-12 years), adolescents	
	9	Paediatric meal planning and balanced nutrition for growth and development	
	10	Nutritional guidelines, nutritional concerns for growth &development	
<b>IV</b>	<b>NUTRITION DURING ADULT YEARS</b>		<b>15</b>
	11	Physiological changes, RDA, nutritional consideration- Adult, Pregnant woman, Lactating mother, Elderly person	
	12	Strategies for preventing malnutrition, promoting weight management, and supporting healthy aging through nutrition	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>15</b>
	13	Planning diet for different age group-pre-school, school going, adolescent, pregnant, lactating mother & elders	
	14	Assignment	
	15	Quiz	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understanding of basic nutrition concepts	U,R	PSO1
CO-2	Apply & understanding the principles of meal planning	Ap, U,R	PSO1,2
CO-3	Evaluate nutritional considerations during adult & childhood years	E,U	PSO5
CO-4	Apply practical skills in diet planning	Ap, U	PSO4

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understanding of basic nutrition concepts	PSO1	U, R	C	L	
CO-2	Apply & understanding the principles of meal planning	PSO1,2	Ap, U, R	C	L	
CO-3	Evaluate nutritional considerations during adult & childhood years	PO4,5,6/ PSO5	E, U	M	L	
CO-4	Apply practical skills in diet planning	PO1,2,3/ PSO4	Ap, U	C,M	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

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**Mapping of COs with PSOs and POs :**

	PS01	PS02	PS03	PS04	PS 05	PS06	PO1	PO2	PO3	PO4	PO5	PO6
CO 1	2	-	-	-	-	-	-	-	-	-	-	-
CO 2	3	3	-	-	-	-	-	-	-	-	-	-
CO 3	-	-	-	-	2	-	-	-	-	3	3	3
CO 4	-	-	-	2	-	3	3	3	3	-	-	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4		✓		✓

**BOOK REFERENCES:**

1. Agarwal, K. N., Agarwal, D. K., & Mittal, A. (2018). Growth in Indian Children: A Comprehensive Evaluation. CBS PUBLISHERS AND DISTRIBUTORS PVT LTD
2. Gopalan, C., Rama Sastri, B. V., & Balasubramanian, S. C. (2023). Nutritive Value of Indian Foods. NATIONAL INSTITUTE OF NUTRITION.
3. Whitney, E., & Rolfes, S. R. (2012). Understanding Nutrition. Wadsworth Publishing Co Inc.
4. Brown, J. E. (2019). Nutrition Through the Life Cycle. Brooks/Cole publishers.

**JOURNALS:**

1. Journal of Home Science, Sri Avinashilingam Deemed University, Coimbatore
2. Indian Journal of Nutrition and dietetics. Sri Avinashilingam Deemed University, Coimbatore
3. Indian Journal of Medical Research, ICMR, New Delhi
4. Indian journal of Paediatrics, Valley Nicro, Mussoria,

**WEB RESOURCES:**

<https://www.eatright.org/>  
<https://www.cdc.gov/nutrition/>  
<https://ods.od.nih.gov/>  
<https://www.who.int/health-topics/nutrition>  
<https://www.nutrition.gov/>



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK3DSEHSC200</b>				
Course Title	<b>EVENT MANAGEMENT</b>				
Type of Course	<b>DSE</b>				
Semester	III				
Academic Level	200 – 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practicum per week	Total Hours/Week
	4	4	-		4
Pre-requisites	1. 2.				
Course Summary	The course provides a platform for students to learn about various aspects and concepts of event management. This course will enhance students' creativity by teaching them how to plan, organise, and evaluate an event, as well as grow and excel in the field of event management.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>CONCEPTS AND PRINCIPLES OF EVENT MANAGEMENT</b>		<b>15</b>
	1	Elements of event management	
	2	Stages of event management	
	3	Functions of event management	
	4	Types of event management	
	5	Components of event management	

<b>II</b>	<b>EVENT PLANNING</b>		<b>15</b>
	5	Types of Events, Core features of event plan	
	6	Steps for event planning	
<b>III</b>	<b>EVENT ORGANISING</b>		<b>15</b>
	7	Event production and logistics-	
	8	Concept, Theme, Venue arrangements	
	9	Fabrication,	
	10	Light & sound,	
	11	Handling vendors ,	
	12	Logistics policy,	
	13	Procedures,	
	14	Protocols, Dress code,	
	15	Performance standards,	
	16	Staging and staffing,	
	17	Event safety and security, Occupational safety,	
	18	Crowd management and motivation	
19	Use of Eco friendly materials for sustainable event management		
<b>IV</b>	<b>ANALYSIS OF EVENTS</b>		<b>15</b>
	20	Assessing and measuring event success	
	21	Feasibility, Keys to success	
	22	SWOT/PERT Analysis	
<b>V</b>			<b>15</b>
	23	Internship training Internship with any event management organization	
	24	Comparison of organization of various functions	
	25	Create and evaluate various events - wedding reception, institutional events, theme parties etc.	



**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the role and purpose of various events	U	PSO-1
CO-2	Understand the techniques and strategies needed to plan a successful event management.	U, Ap	PSO 1,2
CO-3	Understand the role and purpose of various events	U, Ap, An	PSO,1,5,6
CO-4	Develop knowledge and skills to promote, implement, and manage events in a sustainable manner.	C,Ap,An	PSO2,5,6,7
CO-5	Application of budgeting and cost analysis for various events.	Ap,An	PSO ,5,6
CO-6	Application of management evaluation techniques to assess the quality and success of special events	Ap,E, An	PSO , 5, 6

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
CO-1	Understand the role and Purpose of various events	PSO-1,2,5,6	U	F, C	L/T	-
CO-2	Understand the techniques and strategies needed to plan a successful event management.	PSO 1,2	U, Ap	F,C	L/T	-

CO-3	Develop knowledge and skills to promote, implement, and manage events.	PSO, 1, 2,5,6,7	U, Ap, An	P	L/T	-
CO-4	Application of budgeting and cost analysis for various events.	PSO1,2, 5,6	C,Ap,An	C,P	L/T	-
CO-5	Application of management evaluation techniques to assess the quality and success of special events	PSO ,1.2 5, 6	Ap,An	C,P	L/T	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
<b>CO 1</b>	3	3	2	-	3	1	-	3	2	2	2	3	3	-	
<b>CO 2</b>	3	3	2	-	3	3	-	3	3	3	2	2	3	-	
<b>CO 3</b>	3	3	3	-	3	3	3	3	3	3	2	3	3	-	
<b>CO 4</b>	3	3	3	-	3	3	2	3	3	3	2	2	3	-	
<b>CO 5</b>	3	3	-	-	3	3	1	3	3	3	2	3	3	-	

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓			✓
CO 4	✓			✓
CO 5	✓		✓	✓
CO 6	✓		✓	✓

**References**

1. D G Conway,(2020), *The Event Manager's Bible 3rd Edition: The Complete Guide to Planning and Organising a Voluntary or Public Event*
2. Joe Goldblatt, (2014) *Special Events: Creating and Sustaining a New World for Celebration (The Wiley Event Management Series) 3<sup>RD</sup> Edition*, John Wiley & Sons
3. Judy Allen, (2000), *Event Planning, the ultimate guide*, 2nd Edition, John Willey & Sons Inc, ISBN: 978-0470155745.
4. Glenn Bowdin, Johnny Allen, Robert Harris, Leo Jago, William O'Toole, & Ian McDonnell. *Event management 4<sup>th</sup>Edition (2023)*
5. Meegan Jones, (2017), *Sustainable Event Management – A Practical guide*, 3rd edition, Routledge, ISBN: 978-1138217621
6. Ruth Dowson and Daviid Bassett (2019)*Event planning and Management, Principles, planning and practice.*



University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK3DSEHSC201				
Course Title	TEXTILE HERITAGE OF INDIA				
Type of Course	DSE				
Semester	III				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	-	4
Pre-requisites					
Course Summary	This course offers an exploration to the rich cultural heritage of Indian textiles focusing on the various techniques like painting, printing, dyeing, weaving and embroidery. Understanding the diversity of traditional textile arts will help to explore the sustainable practices like use of natural dyes and handloom weaving. At the end of this course, students will emerge with a deep appreciation for the artistry, craftsmanship and cultural significance of traditional Indian textiles.				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	<b>TEXTILE ARTS OF INDIA</b>		12
	1	Introduction to Indian Traditional Textiles	
	2	Classification of Traditional Textiles of India - Painted and printed, Resist dyed, woven and embroidered	
II	<b>EMBROIDERED TEXTILES OF INDIA</b>		12
	3	Phulkari of Punjab, Chikankari of Uttar Pradesh, Zardozi, Kasuti of Karnataka, Kantha of Bengal, Pipli Applique of Orissa	

<b>III</b>	<b>RESIST DYED TEXTILES AND PRINTED TEXTILES</b>		<b>12</b>
	4	Bandhani of Gujarat, Bandhej & Lehariya, Special Tie-Dyed Textiles from Rajasthan	
	5	Ikat - Patola of Gujarat, Bandhas of Odisha Ikat Textiles of Andhra Pradesh - Telia Rumal, Pochampalli, Ikats	
	6	Bagru prints from Rajasthan, Sanganer prints from Rajasthan, Kalamkari from Andhra Pradesh	
<b>IV</b>	<b>HAND-WOVEN TEXTILES</b>		<b>12</b>
	7	Saris- Banaras Brocades, Jamdani Saris, Paithani Saris, Kanjeevaram Saris, Chanderi Saris, Maheshwari Saris, Kerala Kasavu Sais	
	8	Shawls - Kashmir Shawls, Kullu & Kinnaur Shawls, Wraps of North-east	
	9	Floor coverings – Carpets, Durries & Rugs	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>12</b>
	10	Create a portfolio of any two textile arts (Painted and printed, Resist dyed, woven and embroidered)	
	11	Develop a stole/dupatta using tie and dye technique/ resist printing	
	12	Prepare a report on traditional Indian embroideries with its description	
	13	Visit to any textile craft centre	

### COURSE OUTCOMES

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the History of Indian Traditional Textiles	U, R	PSO – 1, 2, 6, 7
CO-2	Identify embroidered fabrics of different states in terms of stitches and designs	Ap, An	PSO – 1, 2, 3, 6, 7
CO-3	Define our heritage of varied dyed, painted and printed fabrics	U	PSO – 1, 2, 3, 6, 7
CO-4	Elucidate construction and design of selected traditional woven fabrics	E	PSO - 1, 2, 3, 5, 6, 7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

Name of the Course: TEXTILE HERITAGE OF INDIA

Credits: 4:0:0 (Lecture:Tutorial:Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand the History of Indian Traditional Textiles	PSO – 1, 2, 6, 7	U, R	F, C	L	
CO-2	Identify embroidered fabrics of different states in terms of stitches and designs	PSO – 1, 2, 3, 6, 7	Ap, An	C	L	
CO-3	Define our heritage of varied dyed, painted and printed fabrics	PSO – 1, 2, 3, 6, 7	U	C	L	
CO-4	Elucidate construction and design of selected traditional woven fabrics	PSO - 1, 2, 3, 5, 6, 7	E	C, P	L	

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	P O 1	P O 2	P O 3	P O 4	P O 5	PO 6	P O7	P O8
CO 1	2	2	-	-	-	2	2	2	-	3	-	-	-	-	3
CO 2	2	2	2	-	-	2	2	2	-	3	-	-	-	-	3
CO 3	2	2	2	-	-	2	2	2	-	3	-	-	-	-	3
CO 4	2	2	2	-	2	2	2	2	-	3	-	-	-	-	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓			✓
CO 3	✓			✓
CO 4	✓			✓

**References**

1. Chattopadhaya, K.D. (1995). Handicrafts of India. New Delhi: Wiley Eastern Limited Corporation.
2. Crill R., Murphy M. (1991). Tie-dyed Textiles of India. London: Victoria and Albert
3. Das S. (1992). Fabric Art- Heritage of India. New Delhi: Abhinav Publications
4. Desai C. (1988). Ikat textiles of India. Chronical Books
5. Dhamija J. (1989). Hand-woven fabrics of India. Ahmedabad: Mapin Publishing pvt It museum.
6. Khare, G. H. (2006). Indian textiles: Past and present. Orient Blackswan.
7. Naik S. (1996). Traditional Embroideries of India. New Delhi: A.P.H. Publishing





University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK3DSEHSC202</b>				
Course Title	<b>BASIC FOOD SCIENCE</b>				
Type of Course	<b>DSE</b>				
Semester	III				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	-	4
Pre-requisites					
Course Summary	This course serves as an introduction to the fundamentals of food science, focusing on the composition and nutritive value of different food groups. It covers essential topics like diverse products of each food group, methods of improving nutritive value and effect of various cooking methods on food.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>CEREALS AND CEREAL PRODUCTS, PULSES</b>		<b>12</b>
	1	Composition and nutritive value Rice, Wheat, Ragi. Cereal products –wheat flour, flaked rice, puffed rice	
	2	South Indian fermented cereal products, Breakfast cereals	
	3	Effect of moist heat on starch - Gelatinization, syneresis, retrogradation Effect of dry heat on starch – Dextrinization Gluten formation	
	4	Methods of improving nutritive value of cereals - Germination (Amylase Rich Foods- ARF), fermentation, parboiling, malting.	
	5	Pulses - Nutritive value. Methods of improving nutritive value (sprouting/germination, fermentation, combination). Antinutritional factors	

<b>II</b>	<b>MILK AND MILK PRODUCTS, MEAT, FISH, EGG AND POULTRY</b>		<b>12</b>
	6	Milk - Nutritive value, Processing – Pasteurization and homogenisation. Milk products–non-fermented (skimmed milk, evaporated milk, condensed milk, toned milk, reconstituted milk ) and fermented (curd, butter, cheese).	
	7	Meat - Nutritive value. Ageing, tenderizing, rigor mortis. Factors affecting tenderness of meat. Changes during cooking. Poultry – Nutritive value	
	8	Fish – Nutritive value. Qualities of fresh fish.	
	9	Egg – Basic structure of an egg and biological value, Quality evaluation and grading of eggs	
<b>III</b>	<b>VEGETABLES AND FRUITS, SUGAR</b>		<b>12</b>
	10	Classification and nutrient composition of fruits and vegetables. Effect of cooking on nutritive value of vegetables.	
	11	Pigments in fruits and vegetables. Enzymatic browning and its prevention	
	12	Sugar – Crystallisation of sugar. Stages of sugar cookery	
<b>IV</b>	<b>CULINARY SCIENCE, FUNCTIONAL FOOD AND NUTRACEUTICAL</b>		<b>12</b>
	13	Objectives of cooking food	
	14	Cooking methods – Dry heat, Moist heat and combination. Advantages and disadvantages	
	15	Others: Microwave cooking, Solar cooking, Air Frying	
	16	Functional Food -Definition, classification of functional foods: Probiotics, Prebiotics, Synbiotics, Symbiotics	
	17	Nutraceuticals - definition, sources, Relation of nutraceuticals with nutrition. Properties and functions of nutraceuticals- Glucosamine, Lycopene, Carnitine, Melatonin and Ornithine Alpha Ketoglutarate.	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>12</b>
	16	Weight and measures-commonly used foods.	
	17	Preparation of selected four recipes of cereals, pulses, vegetables, milk, meat, fish, egg and poultry.	
	18	Visit to a dairy research institute/ MILMA	
	19	Effect of adding acid & alkali on green, red, yellow & white vegetables Methods of preventing browning (demonstration).	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the composition and nutritive value of different food groups	U, R	PSO - 2,7
CO-2	Evaluate the role of different food groups in cookery	E	PSO - 2, 3, 5, 7
CO-3	Examine the methods of food processing and preparation that affect the nutritive value of foods	An	PSO - 2, 3, 5, 7
CO-4	Demonstrate practical skills in food preparation that preserve or enhance the nutritive value of foods	Ap, C	PSO - 1, 2, 3, 4, 5, 6, 7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: BASIC FOOD SCIENCE**

**Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand the composition and nutritive value of different food groups	PSO - 2,7	U, R	F, C	L	
CO-2	Evaluate the role of different food groups in cookery	PSO - 2, 3, 5, 7	E	C, P	L	
CO-3	Examine the methods of food processing and preparation that affect the nutritive value of foods	PSO - 2, 3, 5, 7	An	C, P	L	

CO-4	Demonstrate practical skills in food preparation that preserve or enhance the nutritive value of foods	PSO - 1, 2, 3, 4, 5, 6, 7	Ap, C	P, M		P
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**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8
<b>CO 1</b>	-	2	-	-	-	-	2	2	-	2	-	-	-	-	2
<b>CO 2</b>	-	2	2	-	2	-	3	3	-	3	-	-	-	-	-
<b>CO 3</b>	-	2	2	-	3	-	3	2	1	2	-	-	-	-	2
<b>CO 4</b>	2	3	3	3	3	1	3	3	3	3	3	3	3	3	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment / Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics:**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓		✓	✓

**References**

1. Longvah, T, Ananthan, R., Bhaskarachary, K., Venkaiah, K (2017). Indian Food Composition Tables (IFCT), Indian Council of Medical Research, National Institute of Nutrition, Hyderabad
2. Maney S (2008). Foods, Facts and Principles, 3rd Edition Published by Wiley Eastern, New Delhi
3. Raina U, Kashyap S, Narula V, Thomas S Suvira, VirS, Chopra S (2010) Basic Food Preparation: A Complete Manual, 4th Edition, Orient Black Swan Ltd, Mumbai.
4. Srilakshmi B (2023). Food Science, 8th Edition. Delhi: New Age International Ltd.
5. Sunetra Roday (2018). Food Science and Nutrition, Oxford University Press, New Delhi.
6. Usha Chandrasekhar (2002) Food Science and Application in Indian Cookery, Phoenix Publishing House P. Ltd., New Delhi.



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK3DSEHSC203</b>				
Course Title	<b>SKILLS FOR WORKING WITH CHILDREN</b>				
Type of Course	<b>DSE</b>				
Semester	III				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-		4
Pre-requisites					
Course Summary	The course provides students with a comprehensive understanding of the principles and practices involved in working with children. Through a combination of theoretical knowledge and practical applications, students will be equipped with the necessary skills to support children's holistic development. It emphasizes the importance of empathy, respect, and collaboration in working with children, preparing students to be competent and compassionate professionals in the field.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>IMPORTANCE OF EARLY STIMULATION</b>		<b>12</b>
	<b>1</b>	Principles of child development and learning	
	<b>2</b>	Need and significance of building appropriate skills as adults and professionals to nurture overall development of a child.	
	<b>3</b>	Importance of parental stimulation.	
	<b>4</b>	Role of teacher in enriching children's learning experiences across developmental domains.	
	<b>5</b>	Effect of Screen time on child development.	

<b>II</b>	<b>SKILLS FOR WORKING WITH CHILDREN</b>		<b>12</b>
	<b>6</b>	Skills for Working with Children: Confidence, acceptance, risk taking, trust- building. Personal Skills: passionate attitude, authentic, creative, energetic, innovative and organized. Professional Skills - Knowledge base, theme teaching and integrated curriculum, respect children, families and the context, collaboration with other adults, time management, etc. Communication Skills - Effective listening, perspective taking, encompassing observation and communication - Verbal and non-verbal communication.	
	<b>7</b>	Importance of positive guidance, Need/scope and goals of guidance in contemporary context.	
	<b>8</b>	Principles of guidance, nurturing environment and becoming a nurturing adult.	
	<b>9</b>	Various approaches in guiding children: Setting limits, Modelling, Reinforcement.	
<b>III</b>	<b>METHODS OF CHILD STUDY</b>		<b>12</b>
	<b>10</b>	Importance of Development Screening and Assessment, Ethics in testing.	
	<b>11</b>	Cross-sectional studies, Longitudinal studies, Case studies. Observation, Interview, questionnaire, Social survey, clinical method.	
	<b>12</b>	Assessment of cognitive development, motor development, social-emotional development and personality development.	
	<b>13</b>	Projective techniques: Draw-A-Story, Thematic Apperception Test for Children (TAT-C), Doll play, Emotion cards, Sand play therapy.	
<b>IV</b>	<b>SKILLS FOR GUIDING AND MANAGING PROBLEM BEHAVIOUR</b>		<b>12</b>
	<b>14</b>	Types and causes of problem behaviour: Thumb sucking, enuresis, temper tantrums, ODD (Oppositional defiant disorder), juvenile delinquency.	
	<b>15</b>	Managing problem behaviour.	
	<b>16</b>	Intervention with parents and care providers, referral and support services.	

<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	<b>17</b>	Developing various learning materials/ teaching aids for enhancing development of a child	
	<b>18</b>	Practice AI tools applications in child development	
	<b>19</b>	Sharing of documentaries and videos on Indian folk music and traditional Indian puppetry.	
	<b>20</b>	Critically review child's activities and participation.	
	<b>21</b>	Interview with parents and teachers.	

### **COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand importance of early stimulations and positive reinforcement in child development.	U	PSO- 1,2
CO-2	Develop effective communication skills tailored to children to different ages and backgrounds.	U, Ap	PSO- 3,4
CO-3	Learn various behaviour management techniques and strategies to handle challenging behaviours in children.	Ap, An, E	PSO- 2,3,4
CO-4	Gain knowledge of the legal and ethical considerations when working with children.	An, E	PSO- 3,5
CO-5	Analyse situations, identify challenges and solve problems to address various issues related to child's well-being.	An, E, C	PSO- 6,7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**



**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Understand importance of early stimulations and positive reinforcement in child development.	PO-1,3 PSO-1,2	U	F, C	L	
2	Develop effective communication skills tailored to children to different ages and backgrounds.	PO-3,4 PSO-3,4	U, Ap	C, P	L	
3	Learn various behaviour management techniques and strategies to handle challenging behaviours in children.	PO-6,7 PSO-2,3,4	Ap, An, E	C, P	L	
4	Gain knowledge of the legal and ethical considerations when working with children.	PO-8 PSO-3,5	An, E	P, M	L	
5	Analyse situations, identify challenges and solve problems to address various issues related to child's well-being.	PO-1,2,5 PSO-6,7	An, E, C	P, M	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	2	3	-	-	-	-	-	3	-	3	-	-	-	-	-
CO 2	-	-	3	3	-	-	-	-	-	2	3	-	-	-	-
CO 3	-	2	2	2	-	-	-	-	-	-	-	-	3	3	-
CO 4	-	-	3	-	3	-	-	-	-	-	-	-	-	-	3
CO 5	-	-	-	-	-	3	3	3	3	-	-	3	-	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Discussion / Seminar/ Interviews
- Midterm Exam
- Teaching aid preparation
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Teaching aid preparation	End Semester Examinations
CO 1	✓			✓
CO 2	✓	✓	✓	✓
CO 3	✓	✓	✓	✓
CO 4	✓	✓		✓
CO 5	✓	✓		

**Reference Books:**

1. Aggarwal, J. C. (2007). Early childhood care and education: principles and practices. New Delhi: Shipra.
2. Berk, L.E. (2017). Child development (9th ed.). New York: Pearson
3. Gupta, S. (2009). Early childhood care and education. PHI learning Pvt. Ltd., New Delhi
4. Keenan, T., Evans, S., & Crowley, K. (2016). An introduction to child development Sage.
5. Kennedy, L., & Tipps, s. (2000). Guiding children's learning of mathematics (9th ed.). USA: Wadsworth.
6. Lightfoot, C., Cole, M., & Cole, S. (2012).The development of children (7ed.). NewYork: Worth Publishers.
7. Saraswathi, T.H., Menon, S., & Madan, A. (Eds.) (2018). Childhoods in India Traditions, trends and transformations. New Delhi. Routledge.
8. Taraporevala, R., &Chhugani, N. (2002). Early childhood years. Handbook for parents and teachers. Mumbai: English Edition Publishers.

**Web Resources:**

1. <https://www.mentalhealth.gov/behaviour-problems>.
2. <https://raisingchildren.net.au/discipline-webmd>.
3. <https://www.nagc.org>



## University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK3DSEHSC204</b>				
Course Title	<b>THEATRE FOR SOCIAL CHANGE</b>				
Type of Course	<b>DSE</b>				
Semester	III				
Academic Level	200-299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	-	4
Pre-requisites	1. 2.				
Course Summary	<p>The course "Theatre and Society" offers a comprehensive exploration of the dynamic relationship between theatre and societal issues, providing students with both theoretical knowledge and practical skills to engage with the world through the transformative power of performance. Through a series of modules, students delve into the fundamental concepts of theatre and its connection to society, exploring different types of theatre and their impact on social change. They learn the art of theatre, mastering techniques in acting, directing, and production, while also examining folk theatre traditions from around the globe to gain insights into cultural diversity and heritage. Practical activities in street theatre allow students to apply their learning in real-world contexts, addressing pressing social issues and fostering community engagement and dialogue. By the end of the course, students emerge with a deep appreciation for the role of theatre in reflecting, challenging, and shaping societal norms, equipped with the skills and understanding to enact positive change through creative expression and community activism.</p>				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>INTRODUCTION TO THEATRE AND SOCIETY</b>		<b>15</b>
	1	Overview of the relationship between theatre and society	
	2	Types of theatre-Alternative, Participatory, Street	
	3	Explore culture through different types of folk theatre across nation and globe	
<b>II</b>	<b>PRACTICAL SKILLS IN THEATRICAL PRODUCTION AND PERFORMANCE</b>		<b>15</b>
	4	Basics of stage management, communication technologies i.e. radio headsets, cueing software, and production management apps	
	5	Sustainable set and costume design, including recycling, repurposing, and upcycling materials.	
	6	Energy-efficient lighting and sound design techniques, Lighting design principles, including color temperature, angles, and intensity, sound operation techniques i.e. microphone placement, cueing, and mixing.	
<b>III</b>	<b>ART OF THEATRE</b>		<b>15</b>
	7	Exploration of basic body movement exercises and techniques, Vocal exercises and techniques for improving resonance, articulation, and vocal control	
	8	Key concepts and principles of theatre acting, basic acting techniques, including characterization, emotional expression, and scene analysis, Improvisation, and storytelling	
	9	Concentration and relaxation, including meditation, mindfulness, and sensory awareness	

<b>IV</b>	<b>STREET THEATRE FOR SOCIAL CHANGE</b>		<b>15</b>
	10	Techniques for developing scripts and narrative structure for street theatre performances, effective storytelling strategies for engaging and mobilizing audiences such as vivid visual imagery and descriptive characterization, Dialogue and Interaction, Physicality and Gestures, Relevance and Timeliness, Humor and Satire, Rhythm and Pacing, and Adaptability.	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>15</b>
	11	Group Formation and Social Issue Identification through field visits to the target community, interacting with residents, observing local customs and traditions, and gaining insights into community dynamics and concerns to incorporate into their street theatre performance.	
	12	Pre-Production Planning and Rehearsals - Students collaborate to write scripts, develop characters, and create performance sequences that effectively convey their chosen social issue and message to the audience.	
	13	Street Theatre Performance Students deliver their scripted scenes, improvisational sketches, or interactive performances, engaging community and inviting audience participation.	
	14	Documentation - Comprehensive report & Digital Record of Performance	

## COURSE OUTCOMES

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Demonstrate an understanding of the inter disciplinary nature of theater and its connections to various aspects of society and its components.	U, An	PSO-1
CO-2	Apply the practical skills of theatrical production and performance to create awareness among the society on different relevant issues.	Ap, C,E	PSO 2
CO-3	Utilize digital tools and online platforms for collaborative rehearsal and document the theatre performance.	C	PSO 4
CO-4	Promote sustainability in theater production and practice.	U	PSO 7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	CO-1	PSO 1	U, An	F	L	-
2	CO-2	PSO 2	Ap, C,E	C	L	p
3	CO-3	PSO 2,4	C	C	L	P
4	CO-4	PSO 2,7	U	F	L	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs:**

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
<b>CO 1</b>	1	-	-	-	-	-	-
<b>CO 2</b>	-	2	-	2	-	-	-
<b>CO 3</b>	-	-	-	2	-	-	-
<b>CO 4</b>	-	-	-	2	-	-	2

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓	✓	✓
CO 4	✓	✓		✓



**References:-**

1. Dhir Sunita (2010) *Styles of Theatre acting*; Gyan Publishing House
2. Robert Landy , David T. Montgomery (2012) “*Theatre for Change: Education, Social Action and Therapy* , Palgrave Macmillan; 2012th edition
3. Shank, T. (1982). *Theatre of Social Change*. In: *American Alternative Theatre*. Macmillan Modern Dramatists. Palgrave, London. [https://doi.org/10.1007/978-1-349-16733-3\\_3](https://doi.org/10.1007/978-1-349-16733-3_3)
4. McKenna, Jennifer. "Creating community theatre for social change." *Studies in Theatre and Performance* 34, no. 1 (January 2, 2014): 84–89. <http://dx.doi.org/10.1080/14682761.2013.875721>.
5. Thompson, James, and Richard Schechner. "Why “Social Theatre”?" *TDR/The Drama Review* 48, no. 3 (September 2004): 11–16. <http://dx.doi.org/10.1162/1054204041667767>.
6. Litwak, Jessica. "Audience Engagement in Theatre for Social Change." *Engaged Scholar Journal: Community-Engaged Research, Teaching, and Learning* 5, no. 2 (June 1, 2019): 275–95. <http://dx.doi.org/10.15402/esj.v5i2.68351>.
7. Oliveira, Catarina Sales de. "Empowerment Labs: Gender Equality, Employability and Theatre Catalyzing Social Change." *Procedia - Social and Behavioral Sciences* 161 (December 2014): 56–63. <http://dx.doi.org/10.1016/j.sbspro.2014.12.010>.



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK3VACHSC200</b>				
Course Title	<b>GENDER AND SOCIETY</b>				
Type of Course	<b>VAC</b>				
Semester	III				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/ Week
	3	3	0	0	3
Pre-requisites	None				
Course Summary	The course "Gender and Society" explores the complex interplay between gender, social structures, and cultural practices. Through an interdisciplinary lens, students will critically examine how gender shapes identities, roles, power dynamics, and social inequalities within various sociocultural contexts. Drawing on sociological, anthropological, feminist, and intersectional perspectives, the course will analyze key concepts, theories, and debates related to gender and its implications for individuals, communities, and societies.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>FOUNDATIONS OF GENDER STUDIES</b>		<b>15</b>
	1	Concept of Gender and Sex, Multidisciplinary nature of Gender studies	
	2	Understanding the social construction of gender, gender roles, gender division of labour, gender stereotyping and discrimination.	
	3	Beyond Binaries- LGBTQIA+	

<b>II</b>	<b>GENDER AND DEVELOPMENT</b>		<b>15</b>
	4	Understanding the interrelationship between Gender and Development.	
	5	Approaches to gender participation in development	
	6	Role of gender on economic participation	
	7	Violence against different genders- a brief overview	
<b>III</b>	<b>GENDER MAIN STREAMING</b>		<b>15</b>
	8	Understanding Feminism- Waves of Feminism	
	9	Theoretical perspectives - portrayal and representation of gender in Media - Theory of Visual Pleasure - Male Gaze (Laura Mulvey); - Queer Theory (Judith Butler) - Masculine Hegemony (R.W. Connell).  Body shaming- Meaning, Body image, Role of gender on body shaming. Body shaming and its effect on Mental wellbeing.	
	10	Process of Gender Analysis, Tools for gender analysis, Gender mainstreaming- Steps and Techniques, Gender Budgeting, Glass Ceiling.	
<b>IV</b>	<b>GENDER AND LAW</b>		<b>15</b>
	12	Laws related to Women- The Protection of Women from Domestic Violence Act, 2005, The Dowry Prohibition Act, 1961, The Maternity Benefit Act, 1961, The Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013, The Hindu Succession Act, 1956 (Amended in 2005), The Muslim Women (Protection of Rights on Divorce) Act, 1986, The Medical Termination of Pregnancy Act, 1971.	
	13	Understanding of Policies related to Transgenders - The Transgender Persons (Protection of Rights) Act, 2019, The Supreme Court's NALSA judgment (2014), The Indian Penal Code (IPC) and Criminal Procedure Code (CrPC)	

V	RELATED EXPERIENCES	
15	Preparing a gender album incorporating Inclusivity-case studies of women belonging/ representing to five different sectors of the society.	
16	Data interpretation on gender-related indicators	
17	Review and content analysis of various Media: print, films/documentaries on gender issues and their critical analysis	

### COURSE OUTCOMES

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand foundational concepts and theories related to gender studies.	U	PSO-2,3,6
CO-2	Analyze the social construction of gender and its intersection with other social categories.	U,Ap	PSO – 1,3,6
CO-3	Critically assess representations of gender in media, literature, and popular culture.	U,Ap, An, C	PSO-1,3,6
CO-4	Investigate social movements, activism, and policy interventions aimed at advancing gender equality.	U,Ap,E,C	PSO -2,6,8
CO-5	Develop analytical skills to examine laws and policies on gender dynamics.	U,An, E	PSO-2,3,6
CO-6	Enhance communication and empathy skills to engage in respectful dialogue around gender-related issues.	Ap,An,E	PSO-3,4,6,8

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

Name of the Course: GENDER AND SOCIETY Credits: 3:0:0 (Lecture:3;  
Tutorial:0 Practical:0)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	CO-1	PSO-2,3,6	U	F,C	L	
2	CO-2	PSO – 1,3,6	U,Ap	F,C	L	
3	CO-3	PSO-1,3,6	U,Ap, An, C	F,C	L	
4	CO-4	PSO -2,6,8	U,Ap,E,C	F,C	L	
5	CO-5	PSO-2,3,6	U,An, E	F,C	L	
6	CO-6	PSO-3,4,6,8	Ap,An,E	F,C,P	L	P

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O8	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		1	1			1									1
CO 2	1		1			1		1							1
CO 3	1		-			1			2						
CO 4		1	1			2	1				1				
CO 5		1	1			2			2			2			
CO 6						2	2		2						

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓
CO 5	✓	✓		✓
CO 6	✓	✓	-	✓

**References:**

1. Mandakranta Bose, (2000), Faces of the feminine in ancient, medieval and modern India, Oxford University Press
2. Neeru Sharma, Muzamil Jan, Amit Bhowmick (2021); “Womens health across life span”; Mittal Publications, New Delhi.
3. Lourdes Rita and Jebaselvi.(2015) Women empowerment, Neelkamal publications , Hyderabad
4. Susie Tharu; A. Suneetha; Uma Maheswari Bhrugubanda A world of equals: a textbook on gender (2022); Orient BlackSwan.
5. Brownmiller, S. (2013) Against Our Will: Men, Women, and Rape. New York: Random House.
6. Datar, Chhaya, ed. The Struggle against violence. Calcutta: Stree, 2013
7. Moira Gatens, Alison MacKinnon (2013) Gender and Institutions Welfare Work and Citizenship ; Cambrigde.
8. Narendra Singh Rathore, Lalita Vatta, Ragini Ranawat(2021) “Women and Diversity”; Satish Serial Publishing House
9. Ragini Ranawat, Kesar Choyal, Sithara Balan., Lalita Vatta (2024) “Wellbeing of women – A holistic approach” Satish Serial Publishing House.

# **SEMESTER 4**



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK4DSCHSC200</b>				
Course Title	<b>RESIDENTIAL SPACE PLANNING</b>				
Type of Course	<b>DSC</b>				
Semester	IV				
Academic Level	200 – 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2 hours	5
Pre-requisites	1. 2.				
Course Summary	The course introduces the concepts of residential space, its planning and designing. Further the course helps the students gain knowledge and develop skill to plan , change or enhance kitchen design layout of different types of kitchen and rooms in a house .				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>INTRODUCTION TO RESIDENTIAL SPACE PLANNING</b>		<b>15</b>
	1	Housing needs, functions and criterion for Site selection-Location , Site topography , Physical features, Soil conditions, Legal factors, Infrastructure in terms of drainage, electricity, road facilities and cost	



	2	Principles to be considered while planning a house- .Orientation, Ventilation, Circulation, Grouping or room relationship, Roominess or spaciousness, Economy, Privacy, Flexibility, Zoning, Sanitation, and Aesthetic.	
	3	Types of House- Flats, Bungalows, Apartments, Biophilic designs for sustainable houses.	
	4	House plans for different income groups.-LIG,MIG & HIG.	
<b>II</b>	<b>TYPES OF ROOFS , DOORS, WINDOWS AND ARCHES</b>		<b>15</b>
	5	Roofs- Flat roofs, Pyramid roof, Hip roof	
	6	Doors- Hinged, Sliding, Swing, Revolving, Paneled and Louvered	
	7	Windows- Casement, Pivoted, Sliding, Bay window, Picture windows, French windows, and Clerestory	
	8	Arches- Segmental, Semicircular, Pointed	
<b>III</b>	<b>PLANNING OF INTERIORS</b>		<b>15</b>
	9	Factors in planning different rooms:	
	10	Drawing room	
	11	Dining room	
	12	Kids room	
	13	Bed room	
<b>IV</b>	<b>KITCHEN DESIGN</b>		<b>15</b>
	14	Types of kitchens – U shaped, L shaped, Two walled, One walled, Island and peninsular kitchen. Work triangle	
	15	Storage areas in kitchen. Care and maintenance of kitchen	
	16	Modular kitchen- Characteristic, requirements, materials used	

<b>V</b>	<b>PRACTICAL</b>		<b>15</b>
	17	Design different houses with varying needs	
	18	Conduct home visits to understand the housing styles and preferences of people in your locality and write a report	
	19	Draw house plans for different income groups	
	20	Design and evaluate a modular kitchen	
	21	Prepare and submit Record	

### **COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the principles of planning in a residential space	U	PSO1 PSO2 PSO5
CO-2	Examine the factors to be considered in planning different rooms	U	PSO1 PSO2 PSO5
CO-3	Design a modular kitchen	U,C	PSO1 PSO2 PSO5
CO-4	Create and evaluate the efficiency of a modular kitchen	U, E,C,	PSO1 PSO2 PSO5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

Name of the Course: RESIDENTIAL SPACE PLANNING

Credits: 4:0:0 (Lecture:3, Tutorial:0,Practical:2)

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand the principles of planning in a residential space	PSO1 PSO2 PSO5 PO-1,	U	F, C,P,M	L	
CO-2	Examine the factors to be considered in planning different rooms	PSO1 PSO2 PSO5 PO1 PO2 PO3	U	F, C, P, M	L	
CO-3	Design a modular kitchen	PSO1 PSO2 PSO5 PO1 PO2 PO3	U, C	F, C, P, M	L	P
CO-4	Create and evaluate the efficiency of a modular kitchen	PSO1 PSO2 PSO5 PO1 PO2 PO3	U, C, E	F, C, P, M	L	P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs:**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
<b>CO1</b>	3	3	2	-	3	-	1	3	2	2	-	-	3	-	-
<b>CO2</b>	3	3	2	-	3	-	1	3	3	3	-	-	3	-	-
<b>CO3</b>	3	3	2	-	3	-	1	3	3	3	-	-	3	-	-
<b>CO4</b>	3	3	2	-	3	-	1	3	3	3	-	-	3	-	-
<b>CO5</b>	3	3	-	-	3	-	1	3	3	3	-	-	3	-	-
<b>CO6</b>	3	3	2	-	3	-	1	3	2	3	-	-	3	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓		✓	✓
CO 4	✓		✓	✓

**References**

1. Barbara Sallick (2022). The Perfect Kitchen, (2020) λ Nancy Wolford, Ellen Cheever, NKBA (National Kitchen and Bath Association) (2015). Kitchen and Bath Design Principles: Elements, Form, Styles (NKBA Professional Resource Library), Wiley Publishers
2. S.S. Bhavikatti, (2012). Building Construction, Vikas Publishing Home Pvt Ltd.
3. Dr. B.C. Punmia, Ashok Kumar Jain and Arun Kumar Jain, (Tenth edition). Building Construction. Laxmi Publications (P) Ltd.
4. Faulkner. R, and Faulkner. S. (1987), Inside Today's Home, Rinehart publishing company, Newyork.
5. P.C. Varghese, (May 2013). Building Construction, PHI Learning Private Limited.
6. Riggs,R. (1992), Materials and components of Interior Design, prentice Hall of India Pvt.Ltd, New Delhi.
7. Heather J. Paper (2018). All New Kitchen Ideas that Work, Taunton Press Publishers
8. Sarah Blank (2022). Classic Kitchens for Modern Living: Sarah Blank, Images Publishing Dist Ac Publishers
9. KITCHEN Remodeling: Design Ideas to Modernize Your Kitchen -THE LATEST TRENDS +50 pictures (REMODELING IDEA) (2022). H. PRESS



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK4DSCHSC201</b>				
Course Title	<b>HUMAN NUTRITION</b>				
Type of Course	<b>DSC</b>				
Semester	IV				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites					
Course Summary	<p>Human Nutrition is a comprehensive course designed to provide students with a deep understanding of the fundamental principles of nutrition as they relate to human health and well-being. This course provides an introduction to the field of nutrition which includes the study of carbohydrates, proteins, fat and other essential nutrients. Students will also gain a workable knowledge of digestion, life cycle nutrition and nutrition guidelines. The concepts covered in the lecture course are explored in greater detail during the lab time using a variety of activities including anthropometric measurement, diet presentations and nutrient analysis.</p>				

**Detailed Syllabus**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>BASIC CONCEPTS IN HUMAN NUTRITION</b>		<b>15</b>
	1	Definition of foods, nutrients, nutrition, malnutrition, balanced diet; scope of nutrition principles of meal planning	
	2	Reference Man, Reference Woman, RDA for Indians, Definition of EAR, TUL, Bioavailability	
	3	Factors affecting nutrient requirements	
	4	Rich sources of macro and micro nutrients	
<b>II</b>	<b>NUTRIENTS</b>		<b>15</b>
	5	Carbohydrate - Definition, classification, functions, requirements, digestion, deficiency, excess Fiber-Classification, role of fiber in health and disease	
	6	Proteins and fats- Definition, classification, functions, requirements, digestion, deficiency Essential fatty acids- Functions, sources, deficiency	
	7	Vitamins & Minerals - A, D, E, K, B1, B2, B3, C and Ca, P, Na, K, Fe -Functions, requirements, deficiency	
	8	Energy, Water and Electrolyte Balance	
<b>III</b>	<b>ASSESSMENT OF NUTRITIONAL STATUS</b>		<b>15</b>
	9	Anthropometric assessment	
	10	Biochemical assessment	
	11	Clinical assessment	
	12	Dietary assessment- 24 hour recall method, food frequency questionnaire	
<b>IV</b>	<b>NUTRITION DURING LIFE CYCLE</b>		<b>15</b>
	13	Nutrition during infancy- Nutritional requirements, weaning, Definition-LBW, SGA, Preterm	
	14	Nutrition for school going children and adolescence- Nutritional requirements, packed lunch, eating disorders, dietary guidelines	

	15	Nutrition in Pregnancy – Nutritional requirements, dietary problems, dietary guidelines; Lactation- Nutritional requirements, advantages of breast milk, dietary guidelines	
	16	Nutrition for adults and aged- Nutritional requirements, nutritional problems, dietary guidelines	
<b>V</b>	<b>PRACTICAL BASIC HUMAN NUTRITION</b>		<b>15</b>
	17	Anthropometric assessment of the family- height, weight, BMI	
	18	Balanced diet for an infant, preschool child, school going child and adolescent	
	19	Balanced diet for a pregnant women and lactating mother	
	20	Balanced diet for an adult and aged	

### **PROGRAMME SPECIFIC OUTCOMES (PSO)**

<b>No.</b>	<b>Upon completion of the programme the graduate will be able to</b>	<b>PO No.</b>
PSO-1	Appreciate and leverage the symbiotic relationship among the five core disciplines of Home Science: Resource Management, Food Science & Nutrition, Textile Science, Child Development and Family Studies, Extension and Communication.	PO1, PO3, PO6, PO7, PO8
PSO-2	Acquire professional skills in food, nutrition, textiles, housing, product development, communication technologies, and child development, enabling them to excel in diverse career paths.	PO4, PO5, PO6, PO7, PO8
PSO-3	Promote research, innovation, and product development across all disciplines of Home Science, fostering advancement and addressing societal needs.	PO1, PO2, PO3, PO5, PO8
PSO-4	Enhance digital literacy and utilize digital tools for real-time problem-solving and ideation in various areas of Home Science.	PO1, PO2, PO6, PO7



PSO-5	Translate scientific knowledge from the laboratory into practical solutions that benefit individuals and communities, bridging the gap between academia and society.	PO1, PO2, PO5
PSO-6	Acquire entrepreneurial skills to achieve economic empowerment for themselves and contribute to the economic development of their communities.	PO1, PO2, PO3, PO4, PO5, PO8
PSO-7	Implement sustainable practices and advocate for environmentally friendly approaches in all aspects of Home Science- Resource Management, Food Science & Nutrition, Textile Science, Child Development and Family Studies, and Extension and Communication.	PO3, PO5, PO7, PO8

### COURSE OUTCOMES

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the basic concepts of human nutrition in relation to health	U	PSO1
CO-2	Understand and analyze the classification, functions, deficiency of macro and micronutrients	U, An	PSO1
CO-3	Assess the nutritional status of family	U, Ap, An, E	PSO1, PSO2, PSO3, PSO5
CO-4	Understand basic principles in planning balanced diet for normal life cycle and physiological conditions	U, Ap, An, E, C	PSO1, PSO2, PSO3, PSO5
CO-5	Assess the nutritional status and acquire professional skills to plan diets for life cycle	Ap, An, E, C	PSO1, PSO2, PSO3, PSO4, PSO5, PSO6, PSO7

**Basic Human Nutrition And Biochemistry: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Understand the basic concepts of human nutrition in relation to health	PSO1	U	F, C	L	-
2	Understand and analyze the classification, functions, deficiency of macro and micronutrients	PSO1	U, An	F, C, P	L	-
3	Assess the nutritional status of family	PSO1, PSO2, PSO3, PSO5	U, Ap, An, E	F, C, P	L	-
4	Understand basic principles in planning balanced diet for normal life cycle and physiological conditions	PSO1, PSO2, PSO3, PSO5	U, Ap, An, E, C	F, C, P	L	-
5	Assess the nutritional status and acquire professional skills to plan diets for life cycle	PSO1, PSO2, PSO3, PSO4, PSO5, PSO6, PSO7	Ap, An, E, C	F, C, P	-	P

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-
CO 2	2	-	-	-	-	-	-	2	1	-	-	-	-	-	2
CO 3	1	3	-	-	3	-	-	2	3	1	2	3	-	-	2
CO 4	2	3	-	3	3	-	-	3	3	3	3	3	3	2	3
CO 5	2	3	3	2	3	2	3	3	3	3	3	3	3	2	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3		✓		✓
CO 4		✓		✓
CO 5	✓		✓(Record)	

**Suggested Readings**

1. Rekhi T and Yadav H (2014). Fundamentals of Food and Nutrition. New Delhi: Elite Publishing House Pvt Ltd.
2. Srilakshmi B (2017). Nutrition Science, 6th Edition. Delhi: New Age International Ltd.
3. Byrd-Bredbenner C, Moe G, Beshgetoor D, Berning J. (2013). Wardlaw's Perspectives in Nutrition, International Edition, 9th edition, New York: McGraw- Hill.
4. Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Delhi: Phoenix Publishing House Pvt. Ltd.
5. Longvah T, Ananthan R, Bhaskarachary K and Venkaiah K (2017). Indian Food Composition Tables. National Institute of Nutrition, Indian Council of Medical Research, Department of Health Research, Ministry of Health and Family Welfare, Government of India, Hyderabad.
6. NIN (2011). Dietary Guidelines for Indians- A Manual. Second edition. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
7. Garrow J.S., James W.P.T. and Ralph A (2000), Human Nutrition and Dietetics, 10th edition, Churchill Livingstone.
8. Manay S.N., Sadaksharaswami M. (1998), Food Facts and Principles. New Age International Pvt. Ltd., New Delhi.
9. Indian Council of Medical Research (2020), Nutrient Requirements for Indians Recommended Dietary Allowances and Estimated Average Requirements, ICMR.
10. Swaminathan, M (2002) Food and Nutrition, Volume I, The Bangalore Printing and Publishing Company Ltd.
11. Guthrie, H.A & Picciano, M.F (1995), Human Nutrition, Mosby Publishing Co, New York.
12. Srilakshmi, B. (2005). Dietetics, 5th edition, New Age International Publishers, New Delhi



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK4DSEHSC200</b>				
Course Title	<b>NUTRITIONAL MANAGEMENT OF SPECIFIC LIFESTYLE DISEASES</b>				
Type of Course	<b>DSE</b>				
Semester	IV				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites					
Course Summary	<p>This course provides a comprehensive overview of the dietary management strategies for specific lifestyle diseases, equipping students with the knowledge and skills necessary to address the nutritional aspects of conditions such as cardiovascular diseases, diabetes mellitus, obesity, cancer and chronic obstructive pulmonary disease (COPD). This paper provides students with the necessary skills and expertise to effectively manage specific lifestyle diseases through evidence-based dietary interventions, preparing them for careers in clinical nutrition, dietetics, and public health.</p>				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>UNDERSTANDING LIFESTYLE DISEASES</b>		<b>12</b>
	1	Demonstrate a comprehensive understanding of dietary management strategies for specific lifestyle diseases	
	2	Apply the principles of diet and plan diets for specific lifestyle diseases	
	3	Gain practical experience in planning, preparing, and implementing therapeutic diets for specific lifestyle diseases	
	4	Develop the professional competence in design diet charts and tools for the dietary management of specific lifestyle diseases.	
<b>II</b>	<b>HEART HEALTH AND NUTRITIONAL INTERVENTIONS</b>		<b>12</b>
	5	Cardiovascular diseases terminology (familiarise the terms)- Atherosclerosis, Hypertension, Myocardial Infarction, Ischemic Heart Disease, Arrhythmia, Congestive Heart Failure, Coronary Artery Disease, Stroke, Peripheral Artery Disease, Lipid Profile.	
	6	Epidemiology, classification / types, pathology, risk factors, prevention and dietary management- hyperlipidemia, hypertension and atherosclerosis	
	7	Role of functional foods and antioxidants	
<b>III</b>	<b>NUTRITIONAL APPROACHES FOR DIABETES MANAGEMENT</b>		<b>12</b>
	9	Definition, classification, pathophysiology and metabolic derangements in diabetes	
	10	Complications, clinical symptoms, blood glucose levels, types of insulin, oral hypoglycemic drugs, role of lifestyle modification	
	11	Dietary management of diabetes mellitus and food exchange, Glycemic Index, Glycemic Load, carbohydrate counting, non-nutritive sweeteners, SMBG, CGM., glycemic index	
	12	Significance of meal timing for diabetes management.	

<b>IV</b>	<b>NUTRITIONAL STRATEGIES FOR MANAGING OBESITY, COPD AND CANCER</b>		<b>12</b>
	18	Obesity classification, etiology hormonal and psychological, Complications	
	19	Dietary modifications - energy restricted diets, formula diets	
	20	Portion control, mindful eating for long-term success. Role of lifestyle modification. Eating disorders	
	21	Fad diets- Introduction, merits and demerits- Paleo diet, VLCL diet, Atkins diet, vegan diet, keto diet	
	22	COPD- Causes, symptoms, and impact on nutritional status. Nutritional management of COPD. Significance of healthy weight	
	23	Cancer- Importance of nutrition in cancer care, Nutritional problems in cancer, Nutritional guidelines for cancer patients, Role of nutritional supplements	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	24	Plan, prepare and maintain record for the following: Energy restricted diets-low calorie and low carb diets. Diabetic diet Diet in hypertension, hyperlipidemia (low sodium diet) Diet in COPD	

### **COURSE OUTCOMES**

<b>No.</b>	<b>Upon completion of the course the graduate will be able to</b>	<b>Cognitive Level</b>	<b>PSO addressed</b>
CO-1	Demonstrate a comprehensive understanding of dietary management strategies for specific lifestyle diseases	U, R, C	PSO1 PSO2
CO-2	Apply the principles of diet and plan diets for specific lifestyle diseases	R, U, Ap	PSO2
CO-3	Gain practical experience in planning, preparing, and implementing therapeutic diets for specific lifestyle diseases	U, Ap, C	PSO5
CO-4	Develop the professional competence in design diet charts and tools for the dietary management of specific lifestyle diseases.	C, E, Ap	PSO2, PSO3 PSO4

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Demonstrate a comprehensive understanding of dietary management strategies for specific lifestyle diseases	PO1 PSO1 PSO2	U, R, C	C	L	
2	Apply the principles of diet and plan diets for specific lifestyle diseases	PO1 PO2 PSO2	R, U, Ap	C,P	L	
3	Gain practical experience in planning, preparing, and implementing therapeutic diets for specific lifestyle diseases	PO1 PO2 PO3 PSO5	U, Ap, C	P	L	
4	Develop the professional competence in design diet charts and tools for the dietary management of specific lifestyle diseases.	PO3 PO4 PO5 PO6 PSO2 PSO3 PSO4	C, E, Ap	M,P	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**



**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PO 1	PO2	PO3	PO4	PO5	PO6
CO 1	2	-	-	-	-	-	2		-	-	-	-
CO 2	2		-	-	-	-	2	2	-	-	-	-
CO 3	-	-	-	-	2	-	2	2	2	-	-	-
CO 4	-	2	2	2	-	-	-	-	2	2	2	1

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4		✓		✓

**References**

- Garg, M. (2016). Diet, Nutrition and Health. ABD Publishers.
- Khanna, K., Gupta, S., Seth, R., Passi, S. J., Mahna, R., & Puri, S. (2013). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
- Krause, M. V., & Mahan, K. (2009). Food, Nutrition and Diet Therapy (9th ed.). W.B. Saunders Company.
- Nisha, M. (2016). Diet Planning for Diseases. Kalpaz Publishers.
- Srilakshmi, V. (2016). Dietetics. New Age International P. Ltd.
- Williams, S. R. (1995). Basic Nutrition and Diet Therapy (10th ed.). Mosby-Year Book, Inc.
- Dietary Guidelines of Indians-4 Manual. (2015). National Institute of Nutrition.



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK4DSEHSC201</b>				
Course Title	<b>APPAREL INDUSTRY AND QUALITY ASSESSMENT</b>				
Type of Course	<b>DSE</b>				
Semester	IV				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	2	5
Pre-requisites	1. 2.				
Course Summary	This course helps students to gain knowledge on how to assess the quality of ready-made garments and raises awareness and understanding of garment labels as well as consumer responsibilities. It also provides an overview of the ready-made garment industry and marketing principles.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>QUALITY ASSESSMENT</b>		<b>12</b>
	1	Importance of quality in apparel industry, factors influencing apparel quality, evaluating the quality of readymade garments: Appearance, fabric, fit, workmanship, finishes, price	
	2	Garment labels: Types and importance of labels.	

<b>II</b>	<b>CONCEPT of apparel</b>		<b>12</b>
	3	Concept of apparel	
	4	Apparel classification: Men's wear, Women's wear, Kid's wear, Toddler's wear	
	5	Garment components: - Necklines, collars, sleeves, plackets, pockets, hemlines	
	6	Fullness in garments -Darts, tucks, pleats and gathers	
<b>III</b>	<b>APPAREL DESIGNING</b>		<b>12</b>
	7	Designing garments based on age, climate, occasion, occupation, length of garment, method of manufacture and type of fabric	
	8	Designing garments for special needs: Medical garments, Swimwear, Sportswear, lingerie and maternity wear	
<b>IV</b>	<b>APPAREL MARKETING STRATEGIES</b>		<b>12</b>
	9	Introduction to Apparel marketing.:4P's of Marketing- Product, Price, Place, Promotion	
	10	Product- Product life cycle and marketing strategies	
	11	Price: Objectives, Methods of price fixation	
	12	Place: - Channels of distributions	
	13	Promotion: - Advertising, Publicity, Sales promotion	
	14	Marketing strategies in apparel industry-Branding, Target Market Segmentation, Product Differentiation, Omni-channel Marketing, Content Marketing, Seasonal Campaigns, Customer Relationship Management, Sustainable and Ethical Marketing	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	15	Explore the market regarding various criteria used in marketing of textiles	
	16	Evaluate the quality of ready -made garments based on price, overall appearance, fabric, fit and workmanship	
	17	Visit to readymade garments retail outlets belonging to different levels (designer outlets, middle class outlets, ordinary outlets) and compare the workmanship, fabric, etc. of the garments. And prepare a report.	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Evaluate the quality of ready made garments based on various criteria	E	PSO2 PSO5
CO-2	Analyse the labels attached to garments particularly the wash and care labels	An	PSO2 PSO5
CO-3	Analyse the principles and special requirements for designing special need garment	Ap	PSO2 PSO5
CO-4	Develop proficiency in understanding and applying marketing concepts and strategies in the apparel industry	Ap	PSO2 PSO6
CO-5	Conceptualise the importance of sustainability in apparel production and marketing	E	PSO3 PSO7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course:** APPAREL INDUSTRY AND QUALITY ASSESSMENT

**Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Evaluate the quality of ready made garments based on various criteria	PSO2 PSO5	E	C,M	L	
2	Analyse the labels attached to garments particularly the wash and care labels	PSO2 PSO5	An	C,M	L	

3	Analyse the principles and special requirements for designing special need garment	PSO2 PSO5	Ap	P,M	L	
4	Develop proficiency in understanding and applying marketing concepts and strategies in the apparel industry	PSO2 PSO6	Ap	C,M	L	
5	Conceptualise the importance of sustainability in apparel production and marketing	PSO3 PSO7	E	F, C	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
CO 1		1			2			2		1				
CO 2		1			2			2						
CO 3		2			1					1			2	
CO 4		1				2		1	2					
CO 5			2				2							2

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓	✓		✓
CO 3	✓			✓
CO 4	✓			✓
CO 5	✓	✓		✓

**References**

1. Abhijit Majumdar, Apurba Das, R. Alagirusamy and V. K. Kothari, “Process Control in Textile Manufacturing”, Woodhead Publishing, 2013.
2. Brackenbury Terry. 2013. Knitted Clothing Technology, Blackwell Science Ltd.
3. Chapman, S. N. (2006). Fundamentals of Production, Planning & Control. South Asia: Dorling Kindersley (India) Pvt. Ltd. and Pearson Education.
4. Frings G .(1996) Fashion- Forms Concept to Consumer(5<sup>th</sup> Edition) USA: Prentice Hall

5. George Stylios. 1991. Textile Objective Measurement Automation in Garment Manufacture, Ellis Horwood Ltd, England
6. Groover and Hamby.2011. Handbook of Textile Testing and Quality Control
7. Krishnakumar, M. (2011). Apparel Costing- A Functional Approach. Abhishek Publication.





University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK4DSEHSC202				
Course Title	APPLICATION OF COLOUR IN INTERIORS				
Type of Course	DSE				
Semester	IV				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites					
Course Summary	<p>This course provides an insight on how Colour plays a significant role in interior designing by largely affecting the mood and ambience of a space. Students gain an understanding on the creative use of colours by appreciating its cultural and contextual implications that meet the character and feel of the interiors where it is applied. They also learn about the thoughtful application of colours that could effectively create beautiful, harmonious, and personalized interiors.</p>				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>COLOUR AND COLOUR WHEEL</b>		<b>12</b>
	1	Colour - Meaning, role and significance	
	2	Cultural and contextual implication of colours	
	3	Introduction to Colour wheel, 2D and 3D colour system - Prang's, Munsell and Ostwald colour systems	

<b>II</b>	<b>CLASSIFICATION, DIMENSIONS AND TEXTURE OF COLOURS</b>		<b>12</b>
	4	Classification of Colours - Warm and Cool Colours / Advancing and Receding Colours	
	5	Dimensions of colour - Hue, Value and Intensity	
	6	Texture and finishes in colours - Matte and Glossy	
<b>III</b>	<b>COLOUR SCHEMES</b>		<b>12</b>
	7	Colour schemes - Related colour schemes - Monochromatic, Analogous; Complementary colour scheme- Direct complementary, Double complementary, Split Complementary, Triad.	
	8	Pastel colour schemes - Soft pink, Light blue, Pale yellow, Lavender , Mint green, Peach, Soft grey	
<b>IV</b>	<b>PSYCHOLOGICAL EFFECT AND USE OF COLOURS IN INTERIORS</b>		<b>12</b>
	9	Psychological effect of colours - how colours affect mood and emotions	
	10	Colour palette	
	11	Use of colours in interior spaces	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	12	Make a creative illustration of colour wheel	
	13	Prepare a portfolio of interiors with different colour schemes	
	14	Apply two different colour schemes in separate images of the same design.	
	15	Collect images of interior spaces with Pastel colours	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand colour wheel and its role in designing interior spaces	U, Ap	PSO2 PSO5
CO-2	Appreciate cultural variations and diverse symbolisms of colour	U, Ap	PSO2
CO-3	Comprehend colour schemes and its applications in interiors	U, A	PSO2
CO-4	Develop the skills to appreciate the aesthetics of colour with reference to interior design.	U, A, Ap	PSO5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand colour wheel and its role in designing interior spaces	PSO2 PSO5	U, Ap	F	L, T	-
CO-2	Appreciate cultural variations and diverse symbolisms of colour	PSO2	U, Ap	F,C	L,T	-
CO-3	Comprehend colour schemes and its applications in interiors	PSO2	U, A	P	L, T	-

CO-4	Develop the skills to appreciate the aesthetics of colour with reference to interior design.	PSO5	U, A, Ap	P	L,T	-
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**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
<b>CO 1</b>	-	2	-	-	2	-	-	3							
<b>CO 2</b>	-	2	-	-	-	-	-	-	-	3	3				
<b>CO 3</b>	-	2	-	-	-	-	-	-	-						
<b>CO 4</b>	-	-	-	-	3	-	-	3							

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓			✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓

**References:**

1. Prathap Rao M., Interior Designing - Principles and Practice (2015) Standard Publishers Distributors, Mumbai
2. Kasu Ahmed A (2004) Interior Design (6thEdn.) Sunrise Publishers, Mumbai
3. Khanna G, Art of Interior Design, Indica Publishers, Delhi
4. Craig H.T and Rush C.D, Homes with Character, DC Health and Company, Boston
5. Goldstein H and Goldstein V , Art In Every Day Life, Macmillan Company New York .



University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK4DSEHSC203				
Course Title	HEALTH COMMUNICATION				
Type of Course	DSE				
Semester	IV				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	0	2	5
Pre-requisites	None				
Course Summary	Health communication is an emerging specialty within the field of communication and health disciplines. This course aims to equip students with the skills necessary to structure communication, choose media, and create public health campaigns, all while offering academic and practical foundations. Students will specifically receive the knowledge and skill sets necessary to encourage public discussion and the modification of health policy in addition to informing, empowering, or persuading people to adopt healthier lifestyles.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>FUNDAMENTALS OF HEALTH COMMUNICATION</b>		<b>12</b>
	1	Concept of health communication, scope, methods and Types and Approaches in Health Communication	
	2	Need and importance of health communication	
	3	Health communication principles and strategies	

<b>II</b>	<b>HEALTH JOURNALISM AND BEHAVIOUR CHANGE</b>		<b>12</b>
	4	Impact of health communication in behavior change, Significance of BCC in Health care.	
	5	Health Journalism: Concept, Need and Importance, Roles and Responsibilities of a Health Journalist.	
	6	Health reporting, sources of Health Information – Census, Registration of vital events, SRS, Epidemiological Surveillance, Notification of Diseases, NFHS Reports.	
	7	Ethics in health reporting, Guidelines and criteria for health reporting	
<b>III</b>	<b>MEDIA IN HEALTH COMMUNICATION</b>		<b>12</b>
	8	Role of media in health communication	
	9	Analysis of health campaigns- digital content on Facebook, Instagram, YouTube, X.	
	10	Review of Govt official websites of Arogyakeralam, WCD, Health, NNM, Poshan Abhyan.	
	11	Creative content writing for health messages- basic principles for posters, leaflets, pamphlets.	
<b>IV</b>	<b>SOCIO-CULTURAL ASPECTS IN HEALTH COMMUNICATION</b>		<b>12</b>
	12	Adapting to cultural and health literacy factors.	
	13	Health Disparities in India- An Overview	
	14	Introduction to e-health, m health, and tele health communication	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	15	Preparation of messages for health communication using e-posters/ e-books/epamphlets.	
	16	Script preparation for Skit/Street play on topics related to health and enacting the same.	
	17	Conducting health campaigns on days of importance related to health/food/water	

### **COURSE OUTCOMES**

<b>No.</b>	<b>Upon completion of the course the graduate will be able to</b>	<b>Cognitive Level</b>	<b>PSO addressed</b>
CO-1	Students can articulate a critical understanding of theories, models and assumptions of health communication	U	PSO1 PSO2
CO-2	Tactics for improving oral, written and non	U,Ap	PSO2,

	verbal communication and strategies for presenting medical and scientific information to a variety of audiences		PSO4
CO-3	How to prevent misinformation spread and disseminate accurate information and preparing challenging topics and match communication style to the situation	U,Ap, An, C	PSO2 PSO4
CO-4	Understand how health message are developed and delivered and how health communication campaign are designed, implemented and evaluated	U,Ap,E,C	PSO3 PSO4 PSO5
CO-5	Students can create digital media platforms and technologies to disseminate health information and engage with audiences effectively	C,Ap,An	PSO6 PSO7
CO-6	Strategies to enhance health literacy, public health and improve health information comprehension	U,R	PSO1 PSO2

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PS O	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Students can articulate a critical understanding of theories, models and assumptions of health communication	PSO1 PSO2	C	F, C	L	
2	Tactics for improving oral, written and non verbal communication and strategies for presenting medical and scientific information to a	PSO2 PSO4	P	P	L	



	variety of audiences					
3	How to prevent misinformation spread and disseminate accurate information and preparing challenging topics and match communication style to the situation	PSO2 PSO4	F,C,M	F,C,M	L	
4	Understand how health message are developed and delivered and how health communication campaign are designed, implemented and evaluated	PSO3 PSO4 PSO5	P,M	P,M	L	
5	Students can create digital media platforms and technologies to disseminate health information and engage with audiences effectively	PSO6 PSO7	C,P,M	C,P,M	L	
6	Strategies to enhance health literacy, public health and improve health information comprehension	PSO1 PSO2	F,C	F,C	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6
<b>CO 1</b>	1	2						1					
<b>CO 2</b>		2		2									1
<b>CO 3</b>		1		2				1		2			
<b>CO 4</b>			2	2	1				1				1
<b>CO 5</b>						1	2		1	2			
<b>CO 6</b>	2	1								2			

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓
CO 5	✓	✓		✓
CO 6	✓	✓		✓

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University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK4SECHSC200				
Course Title	ENTREPRENEURSHIP DEVELOPMENT				
Type of Course	SEC				
Semester	IV				
Academic Level	200-299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites	1. 2.				
Course Summary	This course provides a comprehensive exploration of entrepreneurship within the field of Home Science. Students will gain valuable insights into identifying and developing entrepreneurial opportunities in areas such as food production, nutrition services, textile design, family counseling, development communication and community development. Emphasis is placed on integrating sustainability principles, mastering digital tools, and crafting effective business plans tailored for Home Science ventures. By the end of the course, students will be equipped with the knowledge, skills, and mindset needed to embark on their entrepreneurial journey in Home Science with confidence.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
I	<b>CONCEPTUAL UNDERSTANDING</b>		<b>9</b>
	1	Introduction to Entrepreneurship: Definition, Importance of entrepreneurship in driving innovation and economic development, Characteristics of successful entrepreneurs, Case Studies of successful entrepreneurs.	
	2	Entrepreneurship Processes: Steps in the entrepreneurial process: idea generation, opportunity recognition, business planning, implementation, and Evaluation	

<b>II</b>	<b>DESIGN THINKING</b>		<b>9</b>
	3	<p>Introduction to Design Thinking: Definition and principles of design thinking, Human-centered approach to problem-solving and innovation</p> <p>Importance of empathy, creativity, and iteration in the design thinking process</p>	
	4	<p>Phases of Design Thinking:</p> <p>1- Empathize: Understanding the needs, desires, and challenges of end-users through observation, interviews</p> <p>2- Define: Framing the problem statement based on insights gathered during the empathize phase, identifying the core issues to be addressed.</p> <p>3- Ideate: Generating a wide range of creative solutions to the defined problem, encouraging brainstorming, lateral thinking, and collaboration.</p> <p>4- Prototype: Building prototypes or mock-ups of potential solutions to gather feedback</p> <p>5- Test: Testing prototypes with end-users to evaluate their effectiveness, gather feedback, and refine solutions based on real-world insights.</p>	
<b>III</b>	<b>BUSINESS PLAN &amp; MARKETING</b>		<b>9</b>
	5	<p>Writing the Business Plan: Key components of a business plan- executive summary, company description, market analysis, organization and management, products and services, marketing and sales, funding request, and financial projections.</p>	
	6	<p>Marketing Strategies: Developing a marketing plan: marketing goals and strategies, including branding, advertising, promotions, and pricing strategies, Customer Relationship Management</p>	
	7	<p>Utilizing Digital Platforms for Outreach: Leveraging digital tools: Social media, websites, and email marketing to reach and engage with target audience effectively.</p>	
<b>IV</b>	<b>INNOVATION IN HOME SCIENCE</b>		<b>9</b>
	8	Innovation in Food Science	
	9	Innovation in Textiles	
	10	Innovation in HID	
	11	Innovation in Child Development	
	12	Innovation in Extension & Communication	

<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>9</b>
	13	Idea Generation Exercise - Brainstorming, Mapping	
	14	Market Research & Idea Validation Exercise - Survey	
	15	Business Plan Development, & Pitch Presentation	
	16	Conduct Sale Exhibition to promote home science innovation	

### COURSE OUTCOMES

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand concepts, processes, and skills for entrepreneurship with a focus on how these apply to the unique context of Home Science ventures.	R, U, Ap	PSO1
CO-2	Apply design thinking principles to identify and address entrepreneurial opportunities effectively.	U, E	PSO1
CO-3	Acquire the skills to develop comprehensive business plans including market analysis, financial projections, marketing, customer relationship management and utilising digital platforms for outreach.	U, Ap, An	PSO3
CO-4	Learn to identify sustainable innovations and evaluate entrepreneurial skills in different areas of home science	E, C	PSO4
CO-5	Create an entrepreneurship venture project, showcasing their practical application of learned concepts and skills.	U, Ap	PSO7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Entrepreneurship Development**

**Credits: 3:0:0 (Lecture: 3 Tutorial: 0 Practical:0)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Understand concepts, processes, and skills for entrepreneurship with a focus on how these apply to the unique context of Home Science ventures.	PSO 1	U, An	C	L	
2	Apply design thinking principles to identify and address entrepreneurial opportunities effectively.	PSO 1	U, An	M	L	
3	Acquire the skills to develop comprehensive business plans including market analysis, financial projections, marketing, customer relationship management and utilising digital platforms for outreach.	PSO 3	Ap, An	C	L	



4	Learn to identify sustainable innovations and evaluate entrepreneurial skills in different areas of home science	PSO 4	Ap, An	M	L	
5	Create an entrepreneurship venture project, showcasing their practical application of learned concepts and skills.	PSO 7	Ap, C	M	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PO1	PO2	PO3	PO4	PO5	PO6
CO 1	1	-	-	-	-	-	2	2	2	2	2	2
CO 2	2	3	-	-	-	-	2	2	2	2	2	2
CO 3	-	-	1	-	-	-	2	2	2	2	2	2
CO 4	-	-	2	3	-	-	2	2	2	2	2	2
CO 5	-	1	-	-	-	-	2	2	2	2	2	2

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓
CO 5	✓	✓		✓
CO 6	✓	✓	✓	✓

**References:**

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University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK4SECHSC201				
Course Title	ART OF FLOWER ARRANGEMENT				
Type of Course	SEC				
Semester	IV				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites					
Course Summary	<p>Flower arrangement is the art of creatively organizing flowers and other plant materials into a visually appealing display. The art of Flower Arrangement, is a skill enhancement course is designed for undergraduate students interested in exploring the art and science of flower arrangement. It aims to develop students' understanding of floral design principles, techniques, different shapes and styles in flower arrangement, contemporary arrangements and the creative application of these in various settings. This course equip the students to create aesthetically pleasing floral arrangements. The course also emphasizes sustainable practices in floral arrangement, including eco-friendly material use and local sourcing. This will encourage both creativity and a professional approach to flower arrangement.</p>				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>INTRODUCTION TO THE ART OF FLOWER ARRANGEMENT</b>		<b>9</b>
	1	Importance of Flowers in Interiors	
	2	History of Flower Arrangement	
	3	Elements of design in Flower Arrangement	
	4	Principles of design in Flower Arrangement - Balance, harmony, Rhythm, proportion	
<b>II</b>	<b>PROCUREMENT AND PREPARATION OF MATERIALS IN FLOWER ARRANGEMENT</b>		<b>9</b>
	5	Selection and preparation of different types of flowers, foliage, and their care.	
	6	Tools in flower arrangement and their proper use	
	7	Basic techniques: Stem cutting, wiring, taping, and arranging in foam	
	8	Techniques for Long-Lasting Flower Arrangement	
	9	Method of preservation of flowers and foliage	
	10	Transporting Flowers	
<b>III</b>	<b>LEADING STYLES AND SHAPE IN FLOWER ARRANGEMENT</b>		<b>9</b>
	11	Traditional (Vertical, Horizontal, Circular, Triangular, Fan shaped, Crescent and Hogarth)	
	12	Oriental or Japanese - Ikebana (Moribana, Chabana, Nageire and Rikka) .	
	13	Modern trends in floral design.	
	14	Suitability of arrangement in different rooms/ occasions	

<b>IV</b>	<b>CONTEMPORARY ARRANGEMENTS- FLOWER BOUQUETS</b>		<b>9</b>
	15	Materials for Bouquet Making	
	16	Types of Bouquets- basket, hanging, Hand-tied bouquets and posy	
	17	Guidelines for Making Bouquets	
	18	Thematic arrangements for specific purposes and spaces- Weddings, funerals and celebrations	
	19	Fundamentals of creating large-scale floral installations.	
	20	Safety, logistics, and structural considerations.	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>9</b>
	22	Hands-on practice in different styles and shapes of flower arrangement.	
	23	Planning and execution of a theme based floral design.	
	24	Group discussions and Interactive Flower Arrangement Critique Sessions	

### **COURSE OUTCOMES**

<b>No.</b>	<b>Upon completion of the course the graduate will be able to</b>	<b>Cognitive Level</b>	<b>PSO addressed</b>
CO-1	Understand the principles of floral design and aesthetics.	U	PSO1 PSO2
CO-2	Identify various types of flowers, foliage, and their care.	R	PSO2
CO-3	Apply techniques of flower arrangement in bouquets, centrepieces, and decorative installations.	Ap	PSO5 PSO6
CO-4	Incorporate principles of color, texture, and proportion in floral designs.	U	PSO1 PSO7
CO-5	Execute floral designs for specific themes, occasions, and spaces.	C	PSO1 PSO3
CO-6	Practice sustainable methods in floral arrangement and management.	Ap	PSO7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand the principles of floral design and aesthetics.	PSO1 PSO2	U	C	L	
CO-2	Identify various types of flowers, foliage, and their care.	PSO2	R	F	L	
CO-3	Apply techniques of flower arrangement in bouquets, centrepieces, and decorative installations.	PSO5 PSO6	Ap	P	L	
CO-4	Incorporate principles of color, texture, and proportion in floral designs.	PSO1 PSO7	U	C	L	
CO-5	Execute floral designs for specific themes, occasions, and spaces.	PSO1 PSO3	C	P	L	
CO-6	Practice sustainable methods in floral arrangement and management.	PSO7	Ap	M	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

*University of Kerala: Four Year Undergraduate Programme in Home Science 2024*

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	P O1	P O2	PO 3	PO 4	PO 5	P O6	P O 7	P O 8
CO 1	3	2	-	-	-	-	-	-	-	-	-	-	2	-	3
CO 2	-	3	-	-	-	-	-	3	-	-	-	-	2	-	-
CO 3	-	-	-	-	1	3	-	2	3	2	-	-	-	-	-
CO 4	2	-	-	-	-	-	2	3	-	3	-	-	-	-	2
CO 5	3	-	1	-	-	-	-	2	2	3	-	3	-	-	-
CO 6	-	-	-	-	-	-	3	2	3	-	-	-	-	-	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓			✓
CO 3	✓			✓
CO 4	✓			✓
CO 5	✓		✓	✓
CO 6	✓			✓



**References:**

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University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK4VACHSC200</b>				
Course Title	<b>EARLY CHILDHOOD CARE AND EDUCATION</b>				
Type of Course	<b>VAC</b>				
Semester	IV				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites					
Course Summary	<p>This course explores the range of issues related to Early Childhood Care and Education (ECCE). The focus of the course is on understanding the importance of early years and early interventions. Participants learn about child development, curriculum planning, pedagogical approaches, and creating inclusive learning environments. Through practical experiences, observation, and reflection, students develop skills in fostering holistic development, promoting positive relationships, and collaborating with families and communities. The course prepares professionals for careers in early childhood education settings and advocates for quality early childhood care and education.</p>				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>INTRODUCTION TO EARLY CHILDHOOD CARE AND EDUCATION</b>		<b>9</b>
	1	Concept, meaning, scope and significance of ECCE.	
	2	Aims and objectives of ECCE– General and specific.	
	3	Types of ECCE service delivery – Formal and informal Needs and values of ECCE.	
<b>II</b>	<b>ECCE TRAINING</b>		<b>9</b>
	4	Strategies to foster creativity in classroom-Visual, Auditory, tactile, Kinesthetics- (VATK) kits, music and movement, storytelling, puppets, field trips, rhymes/poems and art and craft.	
	5	Needs of Preparing: Early literacy, numeracy, social-emotional development.	
<b>III</b>	<b>PLAY AND ITS IMPORTANCE</b>		<b>9</b>
	6	Play and its characteristics.	
	7	Stages and Types of play.	
	8	Role of play in the overall development of children.	
	9	Teacher's role in creating an environment and promoting play. Use of play way approach in the curriculum for young children.	
<b>IV</b>	<b>COMPONENTS OF ECCE PROGRAMME</b>		<b>9</b>
	10	Infrastructure: Indoor and outdoor. Creating safe spaces for children. Materials and equipment. Understanding the ECCE curriculum. Identifying themes. Developing a weekly plan	
	11	Indicators of a quality ECCE centre and Assessment of children's development in ECCE classrooms.	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>9</b>
	12	Prepare a developmentally appropriate plan and its implementation.	
	13	Visit early childhood centres and document the classroom transactions taking place. Critically evaluate the transactions and make a presentation of your evaluation.	
	14	Observation of early childhood programs (government and private).	
	15	Observation of free-play situations and classifying children's play – Report.	
	16	Developing learning materials for early childhood education.	

## COURSE OUTCOMES

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understanding on the concept and importance of ECCE	U	PSO2 PSO3
CO-2	Form ways to promote development during early years through exploratory activities	R, U	PSO1 PSO3 PSO4
CO-3	Understand and apply the different play forms while childcare	U, Ap	PSO5 PSO6 PSO7
CO-4	Understanding of infrastructure, materials and equipment, curriculum development and assessing the development of children	An, Ev	PSO2 PSO3 PSO7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture: Tutorial: Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understanding on the concept and importance of ECCE	PO6 PSO2 PSO3	U	F, M	L	
CO-2	Form ways to promote development during early years through exploratory activities	PO3 PO7 PSO1 PSO3 PSO4	R, U	F	L	
CO-3	Understand and apply the different play forms while childcare	PO2 PO4 PSO5 PSO6 PSO7	U, Ap	P	L	

CO-4	Understanding of infrastructure, materials and equipment, curriculum development and assessing the development of children	PO1 PO4 PSO2 PSO3 PSO7	An, Ev	F, C	L	
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**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O 1	PSO 2	PSO 3	PS O4	PS O5	PS O6	PS O7	PO1	PO2	PO3	PO4	PO5	PO 6	PO 7
CO 1	1	2	-	-	-	-	-	-	-	-	-	-	3	-
CO 2	-	-	3	-	-	-	-	-	-	3	-	-	-	2
CO 3	2	-	3	-	-	-	-	-	3	-	3	-	-	-
CO 4	-	-	-	-	-	3	3	2	-	-	3	-	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics:**

	<b>Internal Exam</b>	<b>Assignment</b>	<b>Project/Learning material evaluation</b>	<b>End Semester Examinations</b>
CO 1	✓			✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓		✓	✓

**References:**

1. Agarwal, J. C. (2007). Early childhood care and education: principles and practices. New Delhi: Shipra
2. Agarwal, S.P. and Usmani, M. (2000). Children's education in India, Times to twenty-first century New Delhi: Shipra.
3. Canning, N. (2010) Play and practice in the early years: Foundation stage. New Delhi: Sage.
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7. Sarangapani, P.M. (2010). Comparative education in India: Why it is missing and why we need it. Journal of Education Planning and Administration 24(4): 363-378.
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10. Venkataraman, B. (2009). Education for sustainable development. Environment: Science and Policy for Sustainable Development, 51(2), 8-10.

**Web Resources:**

1. <http://www.oecd.org/education/school/31672150.pdf>
2. [http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp\\_content/home\\_science/10\\_early\\_childhoodcare\\_education\\_and\\_development/14\\_aurobindo\\_gijubhai\\_badhika\\_tarabai\\_modak/et/6716\\_et\\_et.pdf](http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/home_science/10_early_childhoodcare_education_and_development/14_aurobindo_gijubhai_badhika_tarabai_modak/et/6716_et_et.pdf)
3. <http://www.educationforallinindia.com/early-childhood-care-and-education-in-india.pdf>
4. <http://www.unesco.org/education/WCECCE/presentations/Sheeranjan-Awathi.pdf>
5. [http://wcd.nic.in/schemes/ECCE/ecce\\_01102013\\_eng.pdf](http://wcd.nic.in/schemes/ECCE/ecce_01102013_eng.pdf)
6. [http://www.ncert.nic.in/new\\_ncert/ncert/rightside/links/pdf/focus\\_group/early\\_childhood\\_education.pdf](http://www.ncert.nic.in/new_ncert/ncert/rightside/links/pdf/focus_group/early_childhood_education.pdf)



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	UK4VACHSC201				
Course Title	SUSTAINABLE LIVING				
Type of Course	<b>VAC</b>				
Semester	IV				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-		3
Pre-requisites	1. 2.				
Course Summary	Sustainable living describes a lifestyle that attempts to reduce the use of Earth's natural resources by an individual or society. It means understanding how our lifestyle choices impact the world around us and finding ways for everyone to live better and lighter. The course introduce the students to the significance of sustainable clothing, gardening and household consumption. The students gain insight on the various practices for a sustainable living.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>INTRODUCTION TO SUSTAINABLE LIVING</b>		<b>9</b>
	1	Definition and concepts	
	2	Significance of Sustainable Living	
	3	Principles of sustainability: social equity, economic viability, and environmental preservation.	



	4	Ways to incorporate sustainable practices in daily routine Reduce, reuse, recycle Conserve energy, Use public transportation Support sustainable products Conserve water Support sustainable food Reduce carbon footprint Plant trees	
	5	Green housing- Concept, Features of green housing, Benefits of green housing	
<b>II</b>	<b>SUSTAINABLE CLOTHING</b>		<b>9</b>
	6	Meaning	
	7	Significance of sustainable clothing	
	8	Types of sustainable clothing	
	9	Sustainable clothing practices	
<b>III</b>	<b>SUSTAINABLE GARDENING</b>		<b>9</b>
	10	Meaning and principle	
	11	Importance of sustainable gardening	
	12	Types of sustainable garden—vegetable garden, indoor herb garden, pollinator garden	
	13	Ways to start sustainable gardening practices- elimination of chemicals, water conservation, compost pile, native plants, mulching, reuse, integrated pest management(IPM) and weed pulling by hands	
	14	Plant suitable for a sustainable garden.	
<b>IV</b>	<b>SUSTAINABLE CONSUMPTION OF HOUSEHOLD PRODUCTS</b>		<b>9</b>
	15	Sustainable consumption---definition. Types of sustainable household products.	
	16	Strategies for sustainable household consumption	
	17	Sustainable consumption practices at household level.	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>9</b>
	18	Preparation of an indoor herb garden at home	
	19	Preparing a report on the sustainable consumption practices followed in the house.	
	20	Conducting awareness class on the importance of sustainable living.	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the key concept of sustainable living	U	PSO1 PSO2
CO-2	Apply the methods of sustainable clothing, gardening and household consumption	U, Ap	PSO1 PSO2 PSO7
CO3	Analyse and evaluate the strategies adopted for sustainable consumption of household products	U,An, Ap ,E	PSO1 PSO2 PSO7
CO-4	Create a sustainable garden at home	U,, Ap,C	PSO1 PSO2 PSO3 PSO7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Understand the key concept of sustainable living	PSO1 PSO2 PO1 PO2	U	F, C	L	-
2	Apply the methods of sustainable clothing, gardening and household consumption	PSO1 PSO2 PSO7 PO1 PO2 PO3	Ap	P	L,T	-

3	Analyse and evaluate the strategies adopted for sustainable consumption of household products	PSO1 PSO2 PSO7 PO1 PO2 PO3	An,E	C	L,T	-
4	Create a sustainable garden at home	PSO1 PSO2 PSO3 PSO7 PO1 PO2 PO3	C	C,P	L,T	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	P O 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3	2	-	3	-	-	3	2	2	-	-	3	-	-
CO 2	3	3	2	-	3	1	3	3	3	3	-	-	3	-	-
CO 3	3	3	2	-	3	1	3	3	3	3	-	-	3	-	-
CO 4	3	3	2	-	3	1	3	3	3	3	-	-	3	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓	✓	✓
CO 3			✓	✓
CO 4			✓	✓

**References:**

1. Sarang Abhay Agnihotri.(2023) Sustainable Living: Eco-friendly Practices for a Greener Planet: Aatmaratna publishers .
2. Kristen Hampshire.(2012).Sustainable Gardening: Easy DIY Projects: eHow publishers.
3. Connie Ulasewicz &Janet Hethorn.(2022).Sustainable Fashion, Fairchild books.
4. Margaret Robertson,(2021). Sustainability Principles and Practice: Routledge publishers
5. <https://www.unep.org> >
6. <https://www.wwf.org.uk> >

# **SEMESTER 5**



University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK5DSCHSC300				
Course Title	RESOURCE MANAGEMENT- CONCEPTS AND CONTEXTS				
Type of Course	DSC				
Semester	V				
Academic Level	300-399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-		4
Pre-requisites					
Course Summary	<p>The Resource Management Concepts and Contexts course delves into the management of resources within family settings, emphasizing the importance of optimizing the use of money, time, and energy through practical and theoretical approaches. It introduces students to key management processes, including decision-making, budgeting, and time management, energy management and explores the effectiveness of various resource management strategies. Ultimately, the course aims to instil in learners the acumen for appreciating management contexts within families and the broader environment.</p>				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>RESOURCE MANAGEMENT: AN OVERVIEW</b>		<b>15</b>
	1	Management - Universality and scope of Family Resource Management, Definitions	
	2	Motivating factors in Management - Values, Standards and Goals	
	3	Decision Making - the Crux of Management, Steps in Decision Making	
	4	Steps in Management process: Planning, Controlling, Organizing and Evaluation	

<b>II</b>	<b>RESOURCES</b>		<b>15</b>
	5	Significance of managing resources in the family	
	6	Classification of Resources - Human, Non-Human	
	7	Natural resources: Renewable and Non-renewable resources	
	8	Resource conservation	
<b>III</b>	<b>RESOURCE MANAGEMENT PROCESS - MONEY AND TIME MANAGEMENT</b>		<b>15</b>
	9	Money - Types and sources of income, meaning of income and expenditure, steps in money management, Budget - Definition, Types and steps in making family budget Financial records - Definition	
	10	Purpose and types of Savings and investments - Meaning, saving institutions and the different schemes (Post office, Bank and LIC)	
	11	Homemaker as a Consumer, Tips for wise buy-man-ship, consumer problems, Rights and responsibilities of a consumer, Consumer protection, Consumer Redressal Cell & Procedures.	
	12	Time Management - Significance of Time Management, Concept of time schedule, Tools in Time management - Time norm, Peak load, work curve, Work Simplification, Planning preparation and Evaluation of Time Schedule.	
<b>IV</b>	<b>ENERGY MANAGEMENT AND ROLE OF ERGONOMICS</b>		<b>15</b>
	13	Energy Management - Significance of energy management	
	14	Types of effort (Manual, Pedal, visual etc)	
	15	Classification of Activities (Sedentary, Moderate and Heavy)	
	16	Body Mechanics - Definition and Principles	
	17	Work simplification – Definition, Mundel’s Classes of Change	
	18	Electrical, indigenous equipment’s and renewable energy devices. Classification, selection, use and care of popular electrical equipments – Microwave oven, Refrigerator, Washing Machine, Dish washer, Robotic Vaccum cleaner, OTG, air fryer. Indigenous equipments -Janatha refrigerator	

		and hay box cooker. Renewable energy device- solar cooker. Conservation of biomass fuel-biogas and smokeless choolah.	
	19	Ergonomics in Energy Management - Concept and principles, work, worker and work environment relationship, Fatigue - Types of fatigue- Physiological, psychological, and pathological fatigue, Methods of alleviating fatigue; Occupational health hazards - sources, problems and solutions	
	20	Time and motion studies - Pathway chart, Process chart and Operation chart	
<b>V</b>	<b>PRACTICAL (Any Five )</b>		<b>15</b>
	21	Identify resources in and around a family, their use and benefits : Prepare an Inventory	
	22	Identification and development of self as a resource - SWOC Analysis	
	23	Building Decision Making abilities through management games/ Role play	
	24	Preparation of a family Budget for one month and evaluation of the budget	
	25	Preparation of time schedule for three consecutive days- Two working days and one holiday	
	26	Case Study: To carryout practical assessment of postures studied in a particular set-up/organization/workplace	
	27	Assessment of maximum and normal working heights in horizontal and vertical plane.	
	28	Application of Time and Motion Studies for simplifying work – Flow/ Process/ Operation chart and report submission	
	29	Demonstration on the use and care of any two popular equipments	
	30	Record Submission	



**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Analyze the factors affecting the utilization of family resources and evaluate different methods of resource conservation.	An, E	PSO-1,7
CO-2	Apply management processes, including decision-making, budgeting and time management, to optimize the use of family resources such as money, time and energy.	Ap	PSO-2,5
CO-3	Evaluate the effectiveness of different resource management strategies, including the use of ergonomic principles to alleviate drudgery and enhance occupational health.	U, E	PSO-1,7
CO-4	Create a comprehensive resource management plan for a family, integrating budgeting and ergonomic analysis to optimize resource use and improve quality of life.	C	PSO-3,5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture:3 Tutorial:0 Practical: 1)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Analyze the factors affecting the utilization of family resources and evaluate different methods of resource conservation.	PSO-1,7	An, E	C, M	L	P

CO-2	Apply management processes, including decision-making, budgeting, and time management, to optimize the use of family resources such as money, time and energy.	PSO-2,5	Ap	P	L	P
CO-3	Evaluate the effectiveness of different resource management strategies, including the use of ergonomic principles to alleviate drudgery and enhance occupational health.	PSO-1,7	U, E	M	L	P
CO-4	Create a comprehensive resource management plan for a family, integrating budgeting and ergonomic analysis to optimize resource use and improve quality of life.	PSO-3,5	C	M	L	P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS 01	PSO 2	PSO 3	PSO4	PS 05	PSO 6	PSO 7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	2	-	-	-	-	-	2	2	3	-	-	1	2	-	2
CO 2	-	2	-	-	2	-	-	-	2	3	-	1	-	-	2
CO 3	1	-	-	-	-	-	1	3	2	-	-	-	2	-	3
CO 4	-	-	2	-	1	-	-	1	-	2	-	-	-	-	2

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓	✓		✓
CO 3	✓		✓	✓
CO 4	✓	✓		✓

**References:**

1. Bhargava, B. (2005). Family resource management and interior decoration. Jaipur: Apple Printer & V. R. Printers.
2. Koontz, H., & O'Donnell, C. (2005). Management – A systems and contingency analysis of managerial functions. New York: McGraw Hill Book Company.
3. Kreitner, R. (2009). Management theory and application. India: Cengage Learning.
4. Mullick, P. (2000). Textbook of Home Science. Ludhiana: Kalyani Publishers.
5. Nickel, P., & Dorsey, J.M. (1997). Management in Family Living. Bangalore: Wiley Eastern Ltd.
6. Rao, V.S.P., & Narayana, P.S. (2008). Principles and Practices of Management. New Delhi: Konark Publishers Pvt. Ltd. ISBN 13: 9788122000283.
7. Singh, S. (2007). Ergonomics integration for health and productivity. New Delhi/Udaipur: Himanshu Publication.
8. Varghese, M.A., Ogale, N., & Srinivasan, K. (1985). Home Management. New Delhi: New Age International (P) Limited, Publishers. ISBN 13: 9780852269046.
9. Singh, S., Dinesh, S., & Rao, R. (2024). Resource Management. Advancements & strategies for education and transformation. International Books and Periodicals Supply Service. ISBN: 9788119105403.



## University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK5DSCHSC301				
Course Title	<b>SOCIAL AND BEHAVIOUR CHANGE COMMUNICATION</b>				
Type of Course	<b>DSC</b>				
Semester	V- Major				
Academic Level	300-399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2 hours	5
Pre-requisites	1. for the students of Home Science Major				
Course Summary	<p>Extension approaches focus on bringing desirable changes in the attitude, skills, understanding, emotions, behavior, knowledge, and practice of the people. Strategic communication methods and tools are required to engage people and develop strategies leading to sustainable social and behavior change. SBCC is an essential tool for promoting social change and development results in a wide range of contexts around the world. In this course, the learner will gain an in-depth understanding of SBCC theories, techniques, and how they can be applied in development initiatives. A combination of theoretical knowledge, case studies and hands-on exercises will equip them with the tools and knowledge that are required to create, implement, and assess successful SBCC interventions.</p>				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>CONCEPT OF BEHAVIOUR</b>		<b>12</b>
	1	Concept of Behaviour and its determinants, Types of behaviour- Observable & Unobservable. Steps of Behavior Change: Awareness, Interest, Desire, Action, and Maintenance (AIDMA Model) Stages of Behaviour adoption- pre-contemplation, contemplation, preparation, action, and maintenance.	
<b>II</b>	<b>SOCIAL &amp; BEHAVIOUR CHANGE COMMUNICATION</b>		<b>12</b>
		BCC- Meaning, Principles and Approaches of BCC, Levels of action of BCC.	
		History and Evolution of SBCC	
		SBCC- Meaning, Relevance, Key components, Elements of SBCC	
<b>III</b>	<b>THEORIES/ MODELS RELATED TO SBCC</b>		<b>12</b>
		Theories of SBCC- Social learning theory, Health belief model, Theory of planned behaviour, Dominant Paradigm Theory, Maslow's hierarchy of Needs, Entertainment-Education Approach (E-E).	
		Tools , Techniques, approaches and practices of SBCC, SBCC Behaviour change wheel.	
		Integrating SBCC into various fields- Importance of SBCC in development context- Gender, Environment, Health and Disease Prevention, Social Change Initiatives	
<b>IV</b>	<b>DESIGNING SBCC INTERVENTIONS</b>		<b>12</b>
		Overview of Communication Methods- Individual, Group, Mass methods	
		Familiarisation with Edgar Dales Cone of Experience- Audio, Visual and Audio Visual Aids.	
		Channels of Communication- Overview of Print, Electronic, Broadcasting and New Media.	
		Principles of script writing for Radio, Television Programme, News article	
		Designing of Messages- Why, When, and Whom should messages be designed- Message Analysis and Criteria for Evaluation of the developed Messages.	
		Monitoring & Evaluation of SBCC Interventions- Development of Monitoring and Evaluation Frameworks	

<b>V</b>	<b>PRACTICALS</b>		<b>12</b>
	1.	Preparation of SBCC content for social media- Instagram, YouTube, Blog, Podcast.	
	2.	Preparation of interactive presentations using power points for creating awareness on any developmental issue.	
	3.	Preparation of news articles for radio, TV documentary, print media on any themes based on nutrition/health and diseases/ renewable energy/responsible parenting/immunisation/man-animal conflict.	
	4.	Screening and Analysis of Short films or documentaries related to gender/ health/disasters/ relationships/child issues/environment.	
	5.	Preparation of folksongs on imparting nutrition education to a group of rural women- make draft lyrics, including the concepts and identify the rhythm for presenting the music.	
	6.	Prepare educational trolls on any developmental issues.	
	7.	Prepare cartoon scripts on themes relevant to the discipline on imparting the knowledge to a group of community members.	
	8.	Prepare case study reports on SBCC interventions- National/ International/ State levels.	

### **COURSE OUTCOMES**

<b>No.</b>	<b>Upon completion of the course the graduate will be able to</b>	<b>Cognitive Level</b>	<b>PSO addressed</b>
CO-1	Understanding on SBCC through principles, approach, and different strategies of SBCC	U,	PSO-1,2
CO-2	Apply SBCC to bring about the desired social change among people, group and societies	Ap,An	PSO-3,4
CO-3	Create good behaviour science based communication to change knowledge, attitude and social norms that influence people, organization and community	Ap, An	PSO-4
CO-4	Deploy variety of communication methods to drive desirable change in individuals and society	U,C,Ap	PSO-5
CO-5	Critically analyse and creatively pick up new abilities through different communication channels	An,E	PSO-4
CO-6	Analyse, monitor, evaluate and interpret through interpersonal communication with people and society	Ap,An,E	PSO-3

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

Name of the Course: **SOCIAL AND BEHAVIOUR CHANGE COMMUNICATION**

Credits: 4:0:0 (Lecture:3 Tutorial:0 Practical:1)

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	CO-1	PO-6	F,C	F, C	L	
2	CO-2	PO- 2,4	F,C	P	L	
3	CO-3	PO- 4,8	M	M		P
4	CO-4	PO-4	F,M	F,M	L	P
5	CO-5	PO-3&4	P	P	L	P
6	CO-6	PO- 1,2&5	C,P	C,P	T	

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PS O1	PS O2	PS O3	PSO 4	PS O 5	PS O6	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3	-	-	-	-	-	-	-	-	-	2	-	-
CO 2	-	-	2	3	-	-	-	2	-	2	-	-	-	-
CO 3	-	-	-	3	-	-	-	-	-	-	-	-	-	2
CO 4	-	-	-	-	3	-	-	-	-	-	-	-	-	-
CO 5	-	-	-	2	-	-	-	-	-	-	-	-	-	-
CO 6	-	-	3	-	-	-	2	2	-	-	3	-	-	-



**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓
CO 5	✓	✓	✓	✓
CO 6	✓	✓	✓	✓

**References:**

1. Karin Gwinn Wilkins, Thomas Tufte, Rafael Obregon (2014)The Handbook of Development Communication and Social Change; Wiley.
2. Zaman, F., & Underwood, C. (2003). The gender guide for health communication programs. *CCP Publication, 102*.
3. Salem, R. M., Bernstein, J., & Sullivan, T. M. (2008). Tools for behavior change communication.

4. Glanz, K., & Bishop, D. B. (2010). The role of behavioral science theory in development and implementation of public health interventions. *Annual review of public health*, 31, 399-418.
5. Health Communication Capacity Collaborative (November 2013). *The P Process. Five Steps to Strategic Communication*. Baltimore: Johns Hopkins Bloomberg School of Public Health Center for Communication Programs.
6. Howard-Grabman, L., & Snetro, G. (2003). *How to mobilize communities for health and social change*.
7. NICE. *Behaviour Change: The Principles for Effective Interventions (PH6)*. London: NICE; 2007.
8. <https://sbccimplementationkits.org/>
9. [www.iec.unicef.org](http://www.iec.unicef.org)



University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK5DSCHSC302				
Course Title	TEXTILE SCIENCE-FIBRE TO FABRIC				
Type of Course	DSC				
Semester	V				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	-	4
Pre-requisites					
Course Summary	This course offers a comprehensive exploration of textile fundamentals, covering fiber characteristics, construction methods, finishes, and sustainability practices. Students learn to identify fibers and examine their properties, including yarn characteristics. They gain insights into textile manufacturing processes and fabric structures. The students also explore sustainability issues in the textile industry. The hands-on components provide practical experience, ensuring students develop both theoretical knowledge and essential skills for success in the field of textiles.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
I	<b>TEXTILE FIBRES</b>		<b>15</b>
	1	Primary and secondary properties, production and use of textile fibres- cotton, jute, wool, silk, rayon, nylon and polyester.	
	2	Identification of textile fibres- feeling test, burning test and microscopic test.	
	3	Yarns- properties, yarn twist, yarn count, spun and filament yarn.	
	4	Basic steps in chemical and mechanical spinning	

<b>II</b>	<b>TEXTILE CONSTRUCTION</b>		<b>15</b>
	5	Introduction to methods of fabric construction- Loom and its parts.	
	6	Weaving- Basic weaving operations, types - basic weaves and variations- plain, twill and satin. Fancy weaves- Dobby, jacquard, pile, leno, clip spot, swivel, double cloth and lappet.	
	7	Characteristics of woven fabrics- warp, weft, grain, selvedge thread count and balance. other methods of fabric construction- knitting, felting, lace making, bonding and braiding	
	8	Significance of Labelling	
<b>III</b>	<b>TEXTILE FINISHES</b>		<b>15</b>
	9	Introduction, significance and classification- regular finishes- scoring, bleaching, singeing, mercerisation, tendering and calendering.	
	10	Special finishes- crease resistant, flame retardant, water repellent and moth proofing.	
<b>IV</b>	<b>TEXTILES AND SUSTAINABILITY</b>		<b>15</b>
	11	Introduction, pillars of sustainability in textiles- environment, economy and society	
	12	Sustainable technologies in textiles- recyclable, regenerative, reusable and responsibly sourced.	
	13	Ways to implement sustainability in textile industry- Reducing environmental impact, Improving working conditions, Using sustainable materials, Using biodegradable textiles, Recycling and reusing textiles, Implementing a circular textile production and consumption system and Implementing environmentally sustainable policies	
<b>V</b>	<b>PRACTICAL</b>		<b>15</b>
	14	Identification of different fibers by following two methods i.e. microscopic test and burning test (cotton, silk, polyester, nylon, wool, rayon)	
	15	Identification of fabric structure- Basic weaves-prepare point paper samples for all the basic weaves- plain, twill, satin (one sample from each). Fancy weaves- pile, dobby, jacquard, leno, clip spot, swivel (Collect samples for record.)	
	16	Standard construction process-basic stitches (4), decorative stitches (10)	
	17	Collection of different types of labels (Any three)	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Demonstrate an integrated understanding of textile science and practical skills in textile manipulation and analysis.	U, An, C	PSO-5,6
CO-2	Proficient in identifying textile fibers and applying this knowledge to discern appropriate fibers for specific applications.	An, C	PSO-2,5
CO-3	Exhibit mastery in weaving operations, enabling them to analyze and replicate various fabric structures.	Ap, An	PSO-2,5
CO-4	Comprehend the significance of textile finishes and sustainability principles, applying them to evaluate and enhance the environmental and social impact of textile production processes.	U, Ap, E	PSO-5,7
CO-5	Develop proficiency to manipulate textiles and create functional and aesthetically pleasing fabrications.	Ap, C	PSO-2,6

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Textile Science- Fibre to Fabric Credits: (Lecture:4**

**Tutorial:0 Practical:0)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Demonstrate an integrated understanding of textile science and practical skills in textile manipulation and analysis.	PSO-5,6	U, An, C	F,C	L	P

2	Proficient in identifying textile fibers and applying this knowledge to discern appropriate fibers for specific applications.	<b>PSO-2,5</b>	An, C	P, M	L	P
3	Exhibit mastery in weaving operations, enabling them to analyze and replicate various fabric structures.	<b>PSO-2,5</b>	Ap, An	P,M	L	P
4	Comprehend the significance of textile finishes and sustainability principles, applying them to evaluate and enhance the environmental and social impact of textile production processes.	<b>PSO-5,7</b>	U, Ap, E	F,P,M	L	
5	Develop proficiency to manipulate textiles and create functional and aesthetically pleasing fabrications.	<b>PSO-2,6</b>	Ap, C	P,M	L	P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :5,6-2,5-2,5-5,7-2,6**

	PS O1	PSO2	PSO3	PS O4	PSO5	PS O6	PSO7	PO 1	PO2	PO 3	PO 4	PO 5	PO 6
CO 1					2	2		2					
CO 2		2			3			2	2				
CO 3		1			2			2	2				
CO 4					2		2	2					
CO 5		2				2				3			

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4	✓	✓		✓
CO 5	✓			✓

**References:**

1. Corbman P.B. (1985). Textiles-Fibre to Fabric. New York: McGraw Hill Book Co. Chapter 13-22,33 pg 245-586
2. Joseph M.L. (1988), Essentials of Textiles (5th Edition), Holt, Florida Rinehart and Winston Inc. Chapter 2 pg 31-36, 45-89
3. Marsh J.T. (1979). An Introduction to Textile Finishing. London: Chapman & Hall Ltd.
4. Sekhri S., (2011) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi.
5. Sinclair R. (2015). Textiles and Fashion: Materials, Design and Technology. Cambridge: Woodhead Publishing Limited
6. Tortora G. (2008). Understanding Textiles (7nd Edition). USA: McMillan Co
7. Wardman R. (2018). An Hollen N., Saddler J., Langford A.L., Kadolph S.J., (1988), Textiles, 6 th Edition, Macmillan Publishing Company New York, USA





University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK5DSEHSC300				
Course Title	FOOD SERVICE MANAGEMENT				
Type of Course	DSE				
Semester	V				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	-	4
Pre-requisites					
Course Summary	This course will help to have a comprehensive overview of different types of food service establishments. It encompasses various aspects of food service management including menu planning, types of equipment, physical facility, different food service systems, food cost analysis and personnel management within the food service establishments.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>Food Service Establishment and Management</b>		<b>12</b>
	1	Food Service Establishment: Definition, Scope and Recent Trends in food service Industry	
	2	Types of Food Service Establishment – Commercial - Hotels, Restaurants, fast food outlets, cafeterias, kiosks Non-commercial - Hospital, School lunch, Industrial canteens Miscellaneous – outdoor, contract and function catering.	
	3	Management – Principles of management Functions of management – Planning, organizing, staffing, directing, coordinating, reporting and budgeting	
	4	Tools of management – Organisation Chart, Job Description, Job Specification, Job Analysis, Work Simplification methods	

<b>II</b>	<b>Physical plant, Equipment and Food Purchase</b>		<b>12</b>
	5	Physical plant – Planning space requirements in Receiving area, storage area, Preparation area and service area	
	6	Equipment: Classification – (i)Weight or size (ii) Order of use (iii) Mode of operation	
	7	Food Purchase - mode and methods; Storage – dry and low temperature storage	
<b>III</b>	<b>Food Service systems, Menu planning and Food Cost analysis</b>		<b>12</b>
	8	Food Service Systems – Conventional, Commissary, Ready prepare, Assembly Serve Systems	
	9	Menu planning – definition, functions and types Standardisation of Recipes and portion control	
	10	Food cost analysis	
<b>IV</b>	<b>Personnel Management</b>		<b>12</b>
	12	Personnel management – Man power planning, recruitment, selection, induction, training, performance appraisal, Training Methods	
	13	Communication in Food Service Operations	
	14	Computer application in the management of hotel and hospital dietary department.	
<b>V</b>	<b>Related Experience</b>		<b>12</b>
	15	Visit to a commercial/non-commercial food service institution	
	16	Plan a layout for Commercial/non-commercial physical facility	
	17	Create costing sheet for recipes and menus.	
	18	Plan and organise a food sale - Design the menu, resources and implement production and sale and evaluate profit or loss	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitiv Level	PSO addressed
CO-1	Understand and describe the different types, scope and trends of food service establishments	R, U	1, 6
CO-2	Apply principles, functions and tools of management in a food service establishment	Ap	1, 2, 5, 6
CO-3	Understand and plan a physical facility layout, selection of equipment and purchase of food	U, Ap	2, 3, 5, 6
CO-4	Understand food service systems, design menus that meet the consumer preferences, dietary requirements and operational constraints	U, Ap	2, 3, 5, 6
CO-5	Manage financial resources and analyse financial performance.	An, E	2, 5, 6
CO-6	Develop skills in personnel management, communication and to integrate the use of technology in food service establishments	Ap, An	2, 4, 5, 6

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

Name of the Course: FOOD SERVICE MANAGEMENT

**Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Understand and describe the different types, scope and trends of food service establishments	1, 6	R, U	F, C	L	
2	Apply principles, functions and tools of management in a food service establishment	1, 2, 6	Ap	P	L	
3	Understand and plan a physical facility layout, selection of equipment and purchase of food	2, 3, 5, 6	U, Ap	M	L	
4	Understand food service systems, design menus that meet the consumer preferences, dietary requirements and operational constraints	2, 3, 5, 6	U, Ap	P	L	

5	Manage financial resources and analyse financial performance.	2, 5, 6	An, E	M	L	
6	Develop skills in personnel management, communication and to integrate the use of technology in food service establishments	2, 4, 5, 6	Ap, An	P	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PO 1	PO2	PO 3	P O 4	PO 5	PO 6	PO 7	PO 8
<b>CO 1</b>	1	-	-	-	-	-	1	-	-	-	-	-	-	-
<b>CO 2</b>	3	2	-	-	-	1	2	2	-	2	2	-	-	3
<b>CO 3</b>	-	-	1	-	-	-	1	1	3	2	2	2	2	2
<b>CO 4</b>	-	-	2	3	-	-	3	3	3	3	3	2	3	3
<b>CO 5</b>	-	1	-	-	-	-	3	3	2	3	3	2	3	3
<b>CO 6</b>	-	-	-	3	-	-	3	3	3	3	3	3	3	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓	✓	✓
CO 2	✓	✓	✓	✓
CO 3	✓	✓	✓	✓
CO 4	✓	✓	✓	✓
CO 5	✓	✓	✓	✓
CO 6	✓		✓	✓

**References**

1. Drummond, Karen E. and Lisa M. Brefere. 2013. Nutrition for Foodservice and Culinary Professionals. New Jersey: Wiley.
2. June Payne-Palacio, and Monica Theis (2016). Food service Management: Principles and Practices, 13th Edition Pub. Harlow: Pearson. Mohini Sethi and Surjeet Malhan (2018). Catering Management – an integrated approach, New Age International (P) Limited, third edition.
3. Palacio, June Payne and Monica Theis. 2001. West and Wood’s Introduction to Foodservice. New Jersey: Prentice Hall.
4. Puckett, Ruby Parker. 2012. Foodservice Manual for Health Care Institutions. San Francisco: Jossey Bass Publishers.
5. Saxena R.P. (2010). Food Service and Catering Management. Delhi: Anmol Publications Pvt Ltd
6. Sethi, M. (2016). Institutional Food Management, New Age International (P) Limited, second edition



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK5DSEHSC301</b>				
Course Title	<b>TEXTILE DESIGN TECHNIQUES</b>				
Type of Course	<b>DSE</b>				
Semester	V				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites	1. 2.				
Course Summary	This comprehensive course on Textile Design Techniques explores the intricate art of textile manipulation and ornamentation, covering a spectrum of traditional and contemporary methods. From the fundamentals of textile dyes and preparation to advanced digital printing technologies, hands-on practice sessions and exposure to AI tools used in digital textile printing will empower participants to apply their newfound knowledge creatively and practically, ensuring a holistic learning experience in textile design techniques.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>TEXTILE DYES</b>		<b>12</b>
	1	Introduction, classification - Natural and artificial dyes- acid, basic, disperse, vat, naphthol, pigment, sulphur and mordant	
	2	Preparation of fabric for dyeing and printing	
	3	Methods and stages of dyeing- stock, yarn, piece, product, cross and union dyeing	
	4	Colorfastness: Factors affecting colorfastness, Testing Wash fastness, Light fastness. Common dyeing defects	

<b>II</b>	<b>TEXTILE PRINTING</b>		<b>12</b>
	5	Styles of printing – Direct, Discharge, Resist – Tie and Dye, Batik, Mud resist	
	6	Methods of printing – Stencil, Block, Roller, Screen, Rotary screen, Heat Transfer, Digital, Flock.	
	7	Common printing defects	
<b>III</b>	<b>FABRIC ORNAMENTATION</b>		<b>12</b>
	9	Introduction to Fabric Ornamentation- Overview of historical and cultural influences in fabric ornamentation	
	10	Kerala Mural Painting- Techniques and motifs in Kerala mural painting, Adapting mural painting techniques to fabric ornamentation	
	11	Animal Print Pattern- Exploring different animal print motifs and patterns- Techniques for creating animal prints on fabric	
	12	African Art- Overview of traditional African art styles and motifs- Incorporating African art elements into fabric ornamentation designs	
	13	Flora and Fauna Art-Techniques for painting flora and fauna motifs on fabric- Creating depth and texture through fabric painting techniques	
<b>IV</b>	<b>DIGITAL PRINTING</b>		<b>12</b>
	14	Digital textile printing technologies and processes, including inkjet and dye-sublimation printing	
	15	Digital printing equipment and software for designing and printing custom textiles.	
	16	Color management, file preparation, and printing techniques to achieve high-quality results in digital textile printing.	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>12</b>
	17	Tie and dye technique, block printing (using single and double coloured blocks), batik technique, fabric painting, flock printing	
	18	Hands-on practice session where students experiment with traditional mural painting, animal print, African art and flora and fauna art on fabric samples.	
	19	List down and familiarise with AI tools used in digital textile printing	



**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Comprehensive knowledge of various textile design techniques, enabling them to employ diverse methods to create innovative and visually appealing textile designs.	Ap	PSO-2,3
CO-2	Develop proficiency in applying and executing traditional and contemporary fabric ornamentation techniques	Ap, C	PSO-3,6
CO-3	Equip to adapt to digital textile printing technologies and processes and apply AI tools in textile printing	Ap, C	PSO-4,5
CO-4	Gain hands-on experience on different techniques to create unique and aesthetically pleasing textile designs, fostering creativity and innovation in textile design practice	Ap, C	PSO-2,6
CO-5	Become competent professionals equipped with the knowledge, skills, and creativity necessary for textile industry	An, C	PSO-2,6

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: TEXTILE DESIGN TECHNIQUES**

**Credits: 4:0:0 (Lecture:4, Tutorial:0, Practical:0)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Comprehensive knowledge of various textile design techniques, enabling them to employ diverse methods to create innovative and visually appealing textile designs.	PSO-2,3	Ap	F, C	L	

CO-2	Develop proficiency in applying and executing traditional and contemporary fabric ornamentation techniques	PSO-3,6	Ap, C	C, P	L	
CO-3	Equip to adapt to digital textile printing technologies and processes and apply AI tools in textile printing	PSO-4,5	Ap, C	P	L	
CO-4	Gain hands-on experience on different techniques to create unique and aesthetically pleasing textile designs, fostering creativity and innovation in textile design practice	PSO-2,6	Ap, C	C, P	L	
CO-5	Become competent professionals equipped with the knowledge, skills, and creativity necessary for textile industry	PSO-2,6	An, C	C,P, M	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	P O 7
CO 1		2	2					2						
CO 2			2			3				2				
CO 3				1	2			2						2
CO 4		2				1		2		2				2
CO 5		3				2							2	

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓	✓		✓
CO 4	✓			✓
CO 5	✓			✓

**References**

1. Corbman P.B. (1985). *Textiles-Fibre to Fabric*. New York: McGraw Hill Book Co.
2. Joseph M.L. (1988), *Essentials of Textiles (5th Edition)*, Holt, Florida Rinehart and Winston Inc.
3. Miles L. (1994). *Textile Printing (2nd Edition)*. England: Society of Dyers and Colourists
4. Murphy V., Crill R. (1991). *Tie-Dyed textiles of India*. London: Victoria & Albert Museum
5. Shorie G.P. (2007). *Vastra Vigyan KeMool Siddhant*. Agra: Vinod Pustak Mandir. Storey, J. (1992). *Manual of Textile Printing*. London: Thames and Hudson publication
6. Wardman R. (2018). *An Introduction to Textile Colouration: Principles and Practices*. New Jersey: John Wiley and Sons Ltd



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK5DSEHSC302</b>				
Course Title	<b>Community Management</b>				
Type of Course	<b>DSE</b>				
Semester	V				
Academic Level	300-399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites	1. 2.				
Course Summary	<p>The Community Management course provides students with a comprehensive understanding of managing community development with the help of Non Government Organization, &amp; Community participation. Through theoretical learning and practical experiences, students explore concepts such as community dynamics, social change, Non Government Organization and Community partnership initiative. The course emphasizes the importance of promoting inclusivity, fostering collaboration, and ensuring the well-being of communities. By the end of the course, students are equipped with the knowledge, skills, and ethical framework needed to drive positive change and sustainable development within communities.</p>				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>UNDERSTANDING COMMUNITY DYNAMICS</b>		<b>12</b>
	1	Community: Concept, Meaning, and Importance:	
	2	Types and Features of Community: Urban, Rural, and Tribal:	
	3	Components of Community: Family structures, caste systems, social institutions, welfare organizations	
	4	Social, Economic, and Political Institutions	
<b>II</b>	<b>SOCIAL CHANGE</b>		<b>12</b>
	5	Definition and significance; Factors driving social change	
	6	Leader & Leadership: Concept, types and identification	
<b>III</b>	<b>NON GOVERNMENT ORGANIZATION &amp; CORPORATE SOCIAL RESPONSIBILITY</b>		<b>12</b>
	7	Importance of NGOs & CSR in community development	
	8	NGOs in India- Trust, Society, Section 25 Company	
	9	Case studies on functioning of CSR - Tata, Birla & Narayana Murthy	
<b>IV</b>	<b>PARTICIPATORY APPROACH IN COMMUNITY MANAGEMENT</b>		<b>12</b>
	10	Role of citizens and civil society in Community Management	
	11	Social Accountability: Concept, Principles & Tools- Community Scorecards, Citizen Report Cards, Social Audit	
	12	Case studies on Public Private partnership model in community development	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	13	-Visit a community (rural/urban/tribal) identify key issues, local leaders, concerns, and priorities within a chosen community. Prepare a report.	
	14	-Role-playing exercises and case studies to explore sustainable partnership and effective participatory strategies in fostering social accountability in community management	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand Social Dynamics and structures and gain insights into the functioning of communities and societies, including administrative structures at rural, urban, and tribal levels, enhancing their understanding of social contexts and facilitating effective engagement.	U, R	PSO 2 and 4
CO-2	Explore concepts of social change and equipped to advocate for social justice, empower marginalized communities, and promote inclusive development.	R, U	PSO 5 and 7
CO-3	Learn about Non Government organizations (NGO) & Corporate Social Responsibility (CSR) working with communities	R, U, An	PSO 6
CO-4	Apply participatory approach in sustainable community development, promoting inclusivity, through the principles of social accountability.	Ap, An, E, C	PSO 4 and 7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Community Management**

**Credits: 4:0:0 (Lecture: 4 Tutorial:0 Practical: 0)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	CO-1	PSO 2&4	U,An	F	L	
2	CO-2	PSO 5&7	U,An	C	L	
3	CO-3	PSO 6	R, An & E	F,C	L	
4	CO-4	PSO 4 & 7	Ap, An	M	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PSO 4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6
CO 1		2	-	2	-	-	-	2	2	-	-	-	-
CO 2			-	-	2	-	2	2	2	-	-	-	-
CO 3	-	-		-	-	2		2	2	2	2	2	2
CO 4	-	-		2	-	-	2	2	2	2	2	2	2

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam
- 

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓



**References:**

1. Varma, S. (2009). *Community Management in India: Challenges and Opportunities*. New Delhi: Concept Publishing Company.
2. Kapur, A. (2006). *Grassroots Democracy: Indian Context*. New Delhi: Kalpaz Publications.
3. Patel, S. (2017). *NGO Management in India: Challenges and Solutions*. New Delhi: Sage Publications India.
4. Rajaram, R. (2015). *Handbook for NGOs: Indian Context*. New Delhi: PHI Learning Private Limited.
5. Jain, R. K., & Khanna, S. (Eds.). (2018). *Social Accountability in India: Concepts, Practices, and Challenges*. New Delhi: Springer.
6. Ministry of Corporate Affairs, Government of India. (n.d.). *Corporate Social Responsibility*. Retrieved from <https://www.mca.gov.in/MinistryV2/csr.html>



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK5DSEHSC303</b>				
Course Title	<b>FAMILY FINANCE AND CONSUMER BEHAVIOUR</b>				
Type of Course	<b>DSE</b>				
Semester	V				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites					
Course Summary	<p>This course enlightens students on how family finance plays a significant role in the well-being and stability of families and the need to manage it effectively to achieve financial security and as a tangible asset for the future. The students also get to learn consumer behaviour as an essential element for businesses to develop effective marketing strategies, design products that conform consumer needs and build strong relationships with customers. They also understand that factors that influence consumer behaviours help business firms to tailor their products and services along with effective marketing for improved connection with their target customers and enhance sales.</p>				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>FAMILY FINANCE- SIGNIFICANCE, PRINCIPLES AND COMPONENTS</b>		<b>12</b>
	1	Family finance - Meaning, Need and Significance	
	2	Role of finance in family living	
	3	Principles and Components of family finance	
<b>II</b>	<b>FAMILY FINANCE MANAGEMENT - METHODS AND TECHNIQUES</b>		<b>12</b>

	4	Steps in family finance management - coordination, accountability, budgeting, saving, communication, planning, recording	
	5	Family budget as a means of managing family finance Importance of Savings as a component in family finance management	
	6	Techniques of managing family finance optimally - creating family budgets, setting financial goals, emergency fund,	
<b>III</b>	<b>CONSUMER BEHAVIOUR</b>		<b>12</b>
	7	Consumer behaviour - Meaning, Definition and Concept Factors influencing consumer behaviour - individual, group and social factors	
	8	Culture role and dynamics on consumer behaviour Types of consumer behaviour - routine, impulse and informed purchase	
	9	Buying motives - Primary, Selective, Rational, Emotional patronage Consumer decision making process Market strategies influencing consumer behaviour	
	10	Consumer aids - Labels, trademarks, brand names, patents, warranty, guarantee and after sales service Guidelines for prudent purchasing practices	

<b>IV</b>	<b>CONSUMER RIGHTS AND LEGISLATION</b>		<b>12</b>
	9	Consumer rights and responsibilities	
	10	Consumer laws	
	11	Consumer Protection - Need and methods Consumer forum State Consumer Disputes Redressal Commission Consumer Online Research and Empowerment Centre (CORE) National Consumer Helpline (NCH) Consumer Voice FICCI Alliance for Consumer Care (FACC) Non-Litigation Mechanism or Alternative Dispute Resolution (ADR) Computerization and Computer Networking of Consumer Forums in the Country (CONFONET)	
<b>V</b>	<b>Related experience</b>		<b>12</b>
	12	Prepare budgets for low, middle and high income families	

	13	Make a comparison chart of wholesale and retail purchasing	
	14	Conduct a case study on factors affecting consumer behaviour	
	15	Submit an assignment on Consumer Rights and Responsibilities	

### **COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the significance of family finance management and be familiar with the techniques of finance management.	U	PSO-1,2
CO-2	Practice budgeting as an effective technique for finance management	U, Ap	PSO -1,
CO-3	Comprehend the changing trends in consumer world and be equipped with knowledge on consumer related facts and issues.	U, A	PSO - 1.3
CO-4	Appreciate consumer legislations, rights, and responsibilities of the consumers and get transformed into empowered smart consumer.	U, Ap	PSO - 4,5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture:4 Tutorial:0 Practical:0)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand the significance of family finance management and be familiar with the techniques of finance management.	PSO-1,2	U	F, C	L, T	-

CO-2	Practice budgeting as an effective technique for finance management	PSO - 1,	U, Ap	P	L,T	-
CO-3	Comprehend the changing trends in consumer world and be equipped with knowledge on consumer related facts and issues.	PSO - 1.3	U, A	M	L, T	-
CO-4	Appreciate consumer legislations, rights, and responsibilities of the consumers and get transformed into empowered smart consumer.	PSO - 4,5	U, Ap	F, M	L, T	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
<b>CO 1</b>	1	-	-	-	-	-	-	2	-	-	-	-	-	-	3
<b>CO 2</b>	2	3	-	-	-	-	-	3	-	-	-	-	-	-	3
<b>CO 3</b>	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
<b>CO 4</b>	-	-	2	3	-	-	-	3	-	3	-	-	3	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4		✓		✓

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3. Keown, A. J. (2019). Personal finance. Pearson.
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University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK5DSEHSC304				
Course Title	INCLUSIVE EDUCATION				
Type of Course	DSE				
Semester	V				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites					
Course Summary	The course introduces students to various disabilities in childhood years. It highlights aspects such as aetiology, characteristics and management of different disabilities. The educational practices in special education and inclusive education are also dealt. It also provides an overview of policies and laws related to disability.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>INTRODUCTION TO INCLUSIVE EDUCATION</b>		<b>12</b>
	1	Concept of special, inclusive and home based education.	
	2	Definition, Classification of mental retardation, Screening and identification, Assessment and evaluation, educational provisions.	
	3	Visually Challenged Children and Children with Hearing Impairments- Assessment, Teaching strategies.	



<b>II</b>	<b>CHILDREN WITH SPEECH, LANGUAGE AND COMMUNICATION DISORDERS</b>		<b>12</b>
	4	Children with Speech, Language and Communication Disorders: classification of speech disorders.	
	5	Correction of disorders, models of speech teaching.	
	6	Children with Orthopaedic impairments- Definition, identification, screening, assessment and need for early intervention.	
<b>III</b>	<b>GIFTED AND CREATIVE CHILDREN</b>		<b>12</b>
	7	Gifted and creative children- Definition, characteristics.	
	8	Screening, assessment.	
	9	Need for early intervention and rehabilitation.	
	10	Educational practices and approaches.	
<b>IV</b>	<b>LEARNING DISABILITIES, ADHD, AUTISM</b>		<b>12</b>
	11	Learning disabilities: definition, types, educational strategies and intervention for children with learning disabilities.	
	12	Attention Deficit Hyperactive Disorder (ADHD): Types, causes and management.	
	13	Autism Spectrum Disorder (ASD)- Training and management.	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	14	Exploring audio-visual sources and AI tools applications for education with reference to children with disabilities and their families.	
	15	Interview the teachers of special school and parents to find out about their experiences, hopes, attitudes and difficulties faced.	
	16	Observe the special methods of educating the mentally and visually challenged.	
	17	Undertake visits to institutions/rehabilitation centres to learn about their functioning.	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Help the disabled by making them aware of the existing assistive technology and its availability and use.	U	PSO- 2,3,4
CO-2	Identify developmental delays among children.	U, Ap	PSO- 1, 3
CO-3	Classify exceptional children and identify the educational provisions and interventions need.	Ap, An	PSO- 2,3,5
CO-4	Plan, implement and evaluate individualized early intervention programme for children with learning disability.	Ap, An, E	PSO- 4, 67
CO-5	Implementing Inclusive Education practices in diverse classroom settings.	Ap, E, C	PSO- 2,4,5,7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Help the disabled by making them aware of the existing assistive technology and its availability and use.	PO-1,2 PSO- 2,3,4	U	C, P	L	
2	Identify developmental delays among children.	PO-3,4 PSO-1,3	U, Ap	C, P	L	

3	Classify exceptional children and identify the educational provisions and interventions need.	PO-2,6,7 PSO-2,3,5	Ap, An	C, P, M	L	
4	Plan, implement and evaluate individualized early intervention programme for children with learning disability.	PO-3,4,5 PSO-4,6,7	Ap, An, E	P, M	L	
5	Implementing Inclusive Education practices in diverse classroom settings.	PO-6,7,8 PSO-2,4,5,7	Ap, E, C	P, M	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	-	3	3	2	-	-	-	2	2	-	-	-	-	-	-
CO 2	3	-	2	-	-	-	-	-	-	3	3	-	-	-	-
CO 3	-	2	2	-	3	-	-	-	2	-	-	-	3	3	-
CO 4	-	-	-	2	-	3	3	-	-	2	2	3	-	-	-
CO 5	-	2	-	3	3	-	2	-	-	-	-	-	3	3	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Report evaluation
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Report evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓	✓	✓
CO 5		✓	✓	✓

**Reference Books:**

1. Cynthia,S. M. (2005). Understanding Special Education: A Helpful Handbook For Classroom Teachers [Paperback] Scholastic Inc.
2. Dash M, (2007), Education of Exceptional Children, Atlantic Publishers and distributors, New Delhi.
3. Diane,S. (2005 ).Including Children With Special Needs: A Handbook For Educators And Parents, USA: Greenwood publishers.
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5. Heward, W. (2009). *Exceptional Children: An Introduction to Special Education (Book Alone): International Edition*. Pearson Education, Limited
6. M.K.C Nair (2014), *The Development of the Infant and the Young Child: Normal and Abnormal*.
7. Mangal, S.K. (2009). *Educating Exceptional Children: An Introduction to Special Education*, Phi Learning.
8. Singh, B. (2005). *Modern Teaching of Exceptional Children*, Agra: Anmol Publishers.

**Web Resources:**

1. <https://www.unicef.org/disabilities/>
2. <https://violenceagainstchildren.un.org>
3. <https://www.sciencedirect.com/rights-disabled-children/>
4. <https://childcare.gov/consumer-education/services-for-children-with-disabilities>



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK5DSEHSC305</b>				
Course Title	<b>FRONT OFFICE MANAGEMENT</b>				
Type of Course	<b>DSE</b>				
Semester	V				
Academic Level	300-399				
Course Details	Credit	Lecture Per week	Tutorial Per week	Practical Per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites					
Course Summary	This course introduces the students to various types of hotels, importance of front office and its layout. It further aims to familiarize the students with the role and functions of various sections of front office departments. It also highlights the qualities of front office staffs				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>Introduction to Front Office</b>		<b>15</b>
	1	Classification of Hotels	
	2	Importance and Layout of Front Office	
	3	Organization structure of front office	
	4	Front office equipment	
<b>II</b>	<b>QUALITIES OF FRONT OFFICE STAFF</b>		<b>15</b>
	5	Front office Manager	
		Assistant manager	
	6	Front office supervisor	
	7	Front Desk clerk and night auditor	
	8	Receptionist	
	9	Front office cashier	

<b>II I</b>	<b>ROLE AND FUNCTIONS OF VARIOUS SECTIONS OF FRONT OFFICE DEPARTMENT</b>		<b>15</b>
	10	Reservation,	
	11	Reception ,	
	12	VIP procedures	
	13	Arrival and departure	
	14	C Form,	
	15	Procedures of check in and check out	
	16	Concierge desk Business, Centre Bell desk Guest Relation desk Telecommunication desk,	
	17	Front office cashier, Lobby Management	
	18	Front office coordination with other departments- Lobby, Housekeeping, Interior decoration, Engineering , Food and Beverages	
<b>IV</b>	<b>ATTRIBUTES OF A FRONT OFFICE STAFF</b>		<b>15</b>
	19	Pleasant personality	
	20	Honesty and Loyalty	
	21	Salesmanship	
	22	Good communication and Good Memory	
	23	Personal Hygiene	<b>15</b>
<b>V</b>	<b>RELATED EXPERIENCE</b>		
	24	Personal experience in the role play of guest handling	
	25	Personal experience of Check in and checkout procedure	
	26	Personal experience of Reservation procedure	

**COURSE OUTCOMES**

No.	Upon Completion The Graduate Will Be Able To	Cognitive Level	PSO addressed
CO-1	Understand the importance of the front office department.	U	PSO-1,2,5
CO-2	Analyze the duties of front office personnel	U, An	PSO-1,2,5
CO-3	Apply the services provided in various areas of the front office in a hotel.	U,Ap	PSO-1,2,5
CO -4	Evaluate the qualities of front office staff	U,An,E	PSO-1,2,5

**R-Remember,U-Understand,Ap-Apply,An-Analyse,E-Evaluate,C-Create**

**Name of the Course: Credits:4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial(T)	Practical (P)
CO-1	Understand the importance of front office department.	PSO-1,2,5 PO-1,3,5,6	3	F,C,	L	
CO-2	Analyze the duties of front office personnel	PSO-1,2,5 PO-1,3,5,6,7	3	F,C,P	L	
CO-3	Apply the services provided in various areas of front office in a hotel.	PSO-1,2,5 PO-1,3,5,6,7	3	F,C,P,M	L,T	
CO -4	Evaluate the qualities of front office staff	PSO-1,2,5 PO-1,3,5,6,7	3	F,C,P,M	L,T	

**F-Factual, C-Conceptual, P-Procedural, M-Metacognitive**



**Mapping of Cos with PSOs and POs:**

	PSO 1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	P O2	PO3	PO4	PO5	PO 6	P O7	PO 8
CO 1	3	3	2	-	3	1	-	3	2	2	2	3	3	-	-
CO 2	3	3	2	-	3	1	-	3	3	3	2	3	3	-	-
CO 3	3	3	2	-	3	1	-	3	3	3	2	3	3	-	-
CO 4	3	3	2	-	3	1	-	3	3	3	2	3	3	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly/Low
2	Moderate /Medium
3	Substantial/High

**Assessment Rubrics:**

- Quiz/Assignment/Quiz/Discussion/Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of Cost Assessment Rubrics:**

	InternalExam	Assignment	Project Evaluation	EndSemester Examinations
CO1	✓	✓		✓
CO2	✓	✓		✓
CO3	✓		✓	✓
CO4			✓	✓

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1. Austin, M. et al (2008), Professional Front Office management, New Delhi: Dorling Kindersley Publication
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3. Ismail, A (2005) Front Office – Operations and Management, Singapore: Thomson Delmar Publications
4. Khan, M. A (2005), Front Office, New Delhi: Anmol Publications
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**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK5DSEHSC306</b>				
Course Title	<b>FOOD SAFETY AND QUALITY CONTROL</b>				
Type of Course	<b>DSE</b>				
Semester	V				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites					
Course Summary	<p>The course will provide a comprehensive overview of food microbiology, food safety and quality control covering key topics such as spoilage and contamination of foods, principles of food safety, identification and prevention of food-borne hazards, application of quality control measures, implementation of food safety management systems and understanding regulatory frameworks. Students will gain knowledge and skills necessary to ensure the safety and quality of food production and processing ultimately contributing to effective food safety management in various settings.</p>				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>INTRODUCTION TO FOOD MICROBIOLOGY, FOOD SAFETY AND QUALITY CONTROL</b>		<b>12</b>
	1	Identification and characteristics of microorganisms such as bacteria, fungi, viruses, and parasites relevant to food safety.	
	2	Factors influencing microbial growth-pH, temperature, moisture content, oxygen availability, and food composition.	
	3	Contamination and spoilage of different kinds of foods- Cereals, Vegetables, Fruits, Meat, Egg, Milk	
	4	Indicator microorganisms (E. coli, enterococci, Bifidobacteria) and microbiological criteria- definition, purpose, and types (microbiological standards, guidelines and specifications)	
	5	Definition and importance of food safety and quality control in public health	
	6	Basic principles of food safety and quality control	
	7	Overview of Regulatory agencies and their roles - FDA, USDA, EFSA, WHO, FSSAI	
<b>II</b>	<b>FOOD-BORNE ILLNESS, HAZARDS AND PREVENTION</b>		<b>12</b>
	8	Food borne infections and intoxications - bacterial (Botulism, Salmonellosis, Shigellosis) and non-bacterial (Alimentary Toxic Aleukia, infectious hepatitis, Amoebic dysentery)	
	9	Microbial hazards: bacteria, viruses, parasites, fungi	
	10	Chemical hazards: toxins, pesticides, additives	
	11	Physical hazards: foreign objects, allergens	
	12	Prevention methods: sanitation, temperature control, hygiene practices	
<b>III</b>	<b>QUALITY CONTROL MEASURES IN FOOD PRODUCTION</b>		<b>12</b>
	13	Good Manufacturing Practices (GMP) and Good Hygiene Practices (GHP)	
	14	Hazard Analysis and Critical Control Points (HACCP)- Principles	
	15	Overview of Quality assurance techniques-Quality Planning, Quality Control, Root Cause Analysis (RCA) and Quality Audits	
	16	Monitoring and documentation of quality parameters	

<b>IV</b>	<b>ANALYSIS AND INTERPRETATION OF FOOD QUALITY PARAMETERS AND FOOD SAFETY MANAGEMENT SYSTEMS</b>	<b>12</b>
17	Sensory evaluation techniques-Difference Testing (Triangle test, Duo-trio test, Paired comparison test) and Descriptive Analysis (Flavor profiling, Texture profiling, Aroma profiling)	
18	Physical analysis methods (Texture Analysis, Colour Measurement and Water Activity Measurement) and chemical analysis methods (pH analysis, Moisture Content Analysis and Analysis of carbohydrates, fats and protein)	
19	Interpretation of results and quality standards	
20	Overview of ISO 22000: Structure, requirements, and principles	
21	Implementation of food safety plans	
22	Nanotechnology applications in food safety: Nanosensors, nanomaterials, and their role in detection and control of foodborne pathogens.	
<b>V</b>	<b>RELATED EXPERIENCES (ANY TWO)</b>	<b>12</b>
23	Hands-on sessions to demonstrate proper hand washing techniques, sanitization of food contact surfaces, and cleaning procedures for equipment and utensils.	
24	Assign students into groups and task each group with developing a Hazard Analysis and Critical Control Points (HACCP) plan for a specific food product or process and identify potential hazards, determine critical control points, establish monitoring procedures, and develop corrective actions and record-keeping protocols.	
25	Visit to food manufacturing plants/ processing facilities/ distribution centers to observe firsthand the implementation of quality control measures, sanitation practices, and food safety management systems	
26	Visit to a hotel/restaurant to observe and infer the food safety practices adopted there	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the basics of food spoilage and principles of food safety and quality control.	U	PSO-1,2
CO-2	Identify common food-borne hazards and their prevention methods.	U	PSO-2
CO-3	Apply quality control measures in food production and processing.	U, Ap	PSO-5
CO-4	Analyze and interpret food quality parameters.	An	PSO-2, 5
CO-5	Implement effective food safety management systems.	Ap	PSO-2, 5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Understand the basics of food spoilage and principles of food safety and quality control.	PO 1 PSO-1,2	U	F, C	L	-
2	Identify common food-borne hazards and their prevention methods.	PO 1 PSO-2	U	F,C	L	-
3	Apply quality control measures in food production and processing.	PO 2 PSO-5	U, Ap	C, P	L	-

4	Analyze and interpret food quality parameters.	PO 1 PSO-2, 5	An	C,P	L	-
5	Implement effective food safety management systems.	PO 2 PSO-2, 5	Ap	C, P	L	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PSO2	PSO3	PSO4	PS O5	PSO 6	PO1	PO2	PO3	PO4	PO5	PO6
<b>CO 1</b>	1	1	-	-	-	-	1	-	-	-	-	-
<b>CO 2</b>	-	2	-	-	-	-	2	-	-	-	-	-
<b>CO 3</b>	-	-	-	-	2	-	-	2	-	-	-	-
<b>CO 4</b>	-	2	-	-	2	-	2	-	-	-	-	-
<b>CO 5</b>	-	2	-	-	2	-	-	2	-	-	-	-

**Correlation Levels:**

<b>Level</b>	<b>Correlation</b>
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4	✓	✓		✓
CO 5	✓			✓

**References**

1. "Food Microbiology An Introduction"(2020) 4<sup>th</sup> ed. Karl R. Matthews, Kalmia E. Kniel, Thomas J. Montville, Wiley.
2. "Food Microbiology" (2017) 5<sup>th</sup> ed. William C Frazier, Dennis C Westoff, K N Vanitha McGraw Hill Education (India) Private Limited
3. "Food Microbiology" (2007),Martin R Adams, Maurice Moss, Royal Society of Chemistry.
4. "Food Microbiology Fundamentals, Challenges and Health Implications" (2019), Elaine Perkins, Lulu Press.
5. "Food Safety: Theory and Practice", Paul L Knechtges (2011) Jones & Bartlett Publishers.
6. "Food Safety Management: A Practical Guide for the Food Industry" Yasmine Motarjemi, Huub Lelieveld (2014), Academic Press Inc
7. "Introduction to Food Science and Food Systems" Miriah Pace, Rick Parker 2<sup>nd</sup> ed. (2016), Delmar Cengage Learning
8. "Food Microbiology: Fundamentals and Frontiers" Michael P. Doyle, Francisco Diez-Gonzalez, Colin Hill 5<sup>th</sup> ed. (2019), ASM Press.
9. "HACCP: A Food Industry Briefing" by Sara Mortimore, Carol Wallace, 2<sup>nd</sup> ed. (2015), Wiley Blackwell.
10. <https://www.mofpi.gov.in> ›
11. <https://www.wfp.org> ›
12. <https://www.fssai.gov.in>
13. <https://www.igmpi.ac.in> ›





University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK5DSEHSC307</b>				
Course Title	<b>FILM MAKING FOR SOCIAL CHANGE</b>				
Type of Course	<b>DSE</b>				
Semester	V- Elective				
Academic Level	300-399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4	-	-	4
Pre-requisites	1. 2.				
Course Summary	<p>"Filmmaking for Social Change" is an immersive course designed to equip students with the essential skills and knowledge to leverage the power of filmmaking for societal impact. Through a series of modules, students will explore the symbiotic relationship between filmmaking and social advocacy, learning pre-production techniques, production strategies, and post-production methods tailored for crafting compelling documentaries and parallel cinema focused on addressing pressing societal issues. Emphasizing ethical storytelling and sensitivity, students will engage in hands-on exercises and collaborative projects aimed at translating scientific knowledge and social awareness into practical solutions, bridging the gap between academia and society. By the end of the course, students will emerge with a deep understanding of how to harness the art of filmmaking to promote positive change and contribute to the advancement of communities and societal well-being.</p>				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>Introduction to Filmmaking for Social Change</b>		<b>12</b>
	1	Symbiotic relationship between filmmaking and social change	
	2	Types of Cinema- Commercial, Parallel, Art, Documentary	
	3	Explore culture through different types of cinema across nation and globe	
	4	Role of documentaries and parallel cinema in addressing societal issues, Case studies of films on social awareness and policy change	
<b>II</b>	<b>Pre-production Techniques</b>		<b>12</b>
	5	Concept development and research methods for socially relevant documentaries and parallel cinema	
	6	Scriptwriting and storyboarding techniques for conveying complex societal issues effectively	
	7	Ethical considerations in portraying real-life stories and marginalized communities	
<b>III</b>	<b>Production Strategies</b>		<b>12</b>
	8	Fundamentals of cinematography, including shot composition, lighting, and framing for conveying emotional depth and authenticity	
	9	Techniques for conducting interviews and capturing compelling footage in diverse settings. Sound recording and its role in enhancing storytelling and audience engagement	
	10	Basics in Photography- Basic Camera Anatomy ,types of cameras and lenses, Understanding Exposure: Aperture, Shutter Speed, ISO, camera settings and controls- Manual Mode vs. Auto Mode, Exposure Compensation, White Balance Adjustment, Autofocus Modes and Techniques, Low light and night photography	
	11	Composition techniques- Rule of third, leading lines, depth of field, framing and perspectives. Basic introduction to Video editing apps- Open Shot	
<b>IV</b>	<b>Post-production</b>		<b>12</b>
	12	Editing techniques, including pacing, montage, and narrative structure for crafting impactful storytelling	
	13	Sound design principles and music selection for enhancing emotional resonance	
	14	Sustainable strategies for audience engagement, outreach, and distribution through digital platforms and community screenings	
	15	Entrepreneurial skills in film making for social change	

<b>V</b>	<b>Related Experience</b>		<b>12</b>
	15	Social Issue Identification through field visits to the target community, interacting with residents, observing local customs and traditions, and gaining insights into community dynamics and concerns to produce a short documentary or Parallel film for social change	
	16	Film Project includes all stages of production, from concept development and pre-production planning to shooting, editing, screening	
	17	Workshop on Photography skilling - showcase a portfolio of their best photographs, demonstrating their understanding of the course	

### **COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Acquire professional skills in filmmaking, pre-production, and post-production, enabling them to excel in diverse career paths related to documentary filmmaking, parallel cinema, and social advocacy.	U, An	PSO-2
CO-2	Translate scientific knowledge and social issues into compelling narratives and practical solutions through filmmaking, bridging the gap between academia and society by effectively communicating complex concepts to diverse audiences.	Ap, C,E	PSO 5
CO-3	Acquire entrepreneurial skills in the realm of filmmaking, enabling economic empowerment for themselves and contributing to the economic development of their communities through socially impactful storytelling and advocacy.	Ap, C	PSO 6
CO-4	Implement sustainable practices and advocate for environmentally friendly approaches in all aspects of filmmaking, including resource management, production, and distribution processes.	U	PSO 7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Filmmaking For Social Change**

**Credits: 4:0:0 (Lecture:3 Tutorial:0 Practical: 2)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	CO-1	PSO 2	R,U,E,C	C,P,M	L	-
2	CO-2	PSO 5	Ap, E, C	C,P,M	-	P
3	CO-3	PSO 6	Ap, E, C	C,P,M	-	P
4	CO-4	PSO 7	U	F	L	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs:**

	PS O1	PS O2	PSO 3	PSO 4	PS O5	PS O6	PSO 7	PO 1	PO2	PO 3	PO4	PO 5	P O6
<b>CO 1</b>	-	2	-	-	-	-	-	2	2	2	2	2	2
<b>CO 2</b>	-	-	-	-	3	-	-	2	2	2	2	2	2
<b>CO 3</b>	-	-	-	-	-	3	-	2	2	2	2	2	2
<b>CO 4</b>	-	-	-	-	-	-	3	2	2	2	2	2	2

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓	✓	✓
CO 3	✓	✓	✓	✓
CO 4	✓	✓		✓

**References:**

1. Kaur, R., & Sinha, A. J. (2006). Lights, camera, masala: Making movies in Mumbai. Indiana University Press.
2. Dudrah, R. K. (2006). Bollywood: Sociology goes to the movies. Sage Publications.
3. Rajadhyaksha, A. (2016). Indian cinema: A very short introduction. Oxford University Press.
4. Viridi, J. (2003). The cinematic ImagiNation: Indian popular films as social history. Rutgers University Press.
5. Andrew, D. (Ed.). (2019). Indian film theory: Cultural critique and cinematic practice. Oxford University Press.
6. Dasgupta, K. (2017). Behind the scenes: Contemporary Bollywood directors and their cinema. Rupa Publications.
7. Venkiteswaran, C. S. (2011). New Indian cinema in post-independence India: The cultural work of Shyam Benegal's films. Routledge.
8. National Film Archive of India. (n.d.). Retrieved from <http://www.nfai.gov.in/>
9. Film Companion. (n.d.). Retrieved from <https://www.filmcompanion.in/>
10. Indian Documentary Foundation. (n.d.). Retrieved from <http://www.indiandocumentaryfoundation.org/>  
*University of Kerala: Four Year Undergraduate Programme in Home Science 2024*



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	UK5DSEHSC308				
Course Title	<b>LIGHTING AND ACCESSORIES FOR INTERIORS</b>				
Type of Course	<b>DSE</b>				
Semester	V				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-		4
Pre-requisites					
Course Summary	<p>The course provides information on Lighting as a significant element in interior designing that goes beyond mere illumination, contributing to the functionality, mood and overall experience of a space thus making it an essential consideration in designing interior spaces. The students also get to learn about accessories that serve to add style, functionality and visual appeal to interior space and help personalise the décor by enhancing the aesthetics and creating an inviting environment that reflects individual taste and lifestyle.</p>				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>LIGHTING - NEED, SIGNIFICANCE AND TYPES</b>		<b>12</b>
	1	Lighting - Need and significance	
	2	Types of lighting in interiors - Ambient lighting, Task lighting, Accent lighting , Decorative lighting	
	3	Home lighting - Direct, indirect, semi-direct, semi-indirect, uplighters and down-lighters	

<b>II</b>	<b>STYLES AND SUSTAINABILITY IN LIGHTING</b>		<b>12</b>
	4	Styles in lighting - Traditional, modern and eclectic	
	5	Adequacy of lighting in residential spaces -living room, dining room, bed room, study room and kitchen	
	6	Sustainable lighting - Concept and significance	
<b>III</b>	<b>ACCESSORIES IN INTERIORS</b>		<b>12</b>
	7	Definition and Significance of accessories in interiors Classification of accessories - functional and decorative	
	8	Selection and placement of accessories - Art, craft, sculptures, antiques, pictures, indoor plants and flower arrangements	
<b>IV</b>	<b>CURRENT TRENDS IN ACCESSORIES</b>		<b>12</b>
	9	Current trends in interior décor and accessories.	
	10	Do's and don'ts of accessorising interiors	
	11	Sustainability in accessories Recycling and upcycling of waste materials for accessorising interiors	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>12</b>
	12	Create a portfolio of interiors with different styles of lighting	
	13	Collect images of lighting in various residential spaces	
	14	Preparation any two accessories for interiors	
	15	Development of accessories from waste materials	

### COURSE OUTCOMES

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Attain sound knowledge in better understanding of selection of lighting and accessories for interior spaces	U, Ap	PSO-1,2
CO-2	Practice current trends in lighting for interior spaces.	U, Ap	PSO-1,2,6
CO-3	Design and create various accessories for decorating interiors	U, A	PSO-1,3,7
CO4	Identify and generate accessories by recycling or up-cycling waste materials	U, Ap	PSO-1,3,7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

Name of the Course: Credits: 4:0:0 (Lecture:4 Tutorial:0 Practical:0)

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Attain sound knowledge in better understanding of selection of lighting and accessories for interior spaces	PSO-1,2	U, Ap	F, C	L, T	-
CO-2	Practice current trends in lighting for interior spaces.	PSO-1,2,6	U, Ap	F, P	L, T	-
CO-3	Design and create various accessories for decorating interiors	PSO-1,3,7	U, A	P	L, T	-
CO4	Identify and generate accessories by recycling or up-cycling waste materials	PSO-1,3,7	U, Ap	P,M	L, T	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**



**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	P O4	P O5	P O6	P O7	P O8
<b>CO 1</b>	1	-	-	-	-	-		-	-	-	-	-	-	-	-
<b>CO 2</b>	2	3	-	-	-	-		-	-	-	-	-	-	-	-
<b>CO 3</b>	-	-	1	-	-	3	3			3	-	-	3	-	2
<b>CO 4</b>	-	-	2	3	-	3	3			3	-	-	3	-	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4		✓		✓

**REFERENCES**

1. Prathap Rao M., Interior Designing – Principles and Practice (2015) Standard Publishers Distributors, Mumbai
2. Kasu, A (2005) Interior design, Ashis Book Centre, Mumbai
3. Khanna G, Art of Interior Design, Indica Publishers, Delhi
4. Craig H.T and Rush C.D, Homes with Character, DC Health and Company, Boston
5. Goldstein H and Goldstein V , Art In Every Day Life, Macmillan Company New York
6. Great Home Decorating Ideas, Mike Lawrence and Jan eaton, Anness Publishing Limited, London

**WEB RESOURCES**

1. <https://foyr.com/learn/accessories-in-interior-design/>



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK5DSEHSC309</b>				
Course Title	<b>CHILD RIGHTS AND WELFARE PERSPECTIVES</b>				
Type of Course	<b>DSE</b>				
Semester	V				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	-	4
Pre-requisites					
Course Summary	<p>A child rights and welfare perspective course offer an interdisciplinary study of laws, policies, and practices concerning children's rights and well-being. It covers topics such as child development, protection, education, healthcare, and social inclusion. Through case studies, discussions, and practical exercises, students gain insights into advocating for children's rights, analysing challenges, and implementing effective interventions. It equips learners with the knowledge and skills to contribute to policy-making, advocacy, and programming aimed at ensuring the fulfilment of children's rights and promoting their holistic welfare.</p>				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>CHILD RIGHTS</b>		<b>9</b>
	1	Introduction: Definition, Meaning and Nature of Child Rights.	
	2	Fundamental Rights of Children, UNCRC, National Commission for the Protection of Child Rights (NCPCR) 2007.	
<b>II</b>	<b>ISSUES FACED BY CHILDREN</b>		<b>9</b>
	3	Child Labour, Child Abuse, Children in Different situations (Refugee, Street, Slum), Children of Migrant workers.	
	4	Child Sex Tourism and Child Pornography, Children affected by Substance abuse	
	5	Other violations: Torture, Genocide, child right violations and Terrorism, Child Trafficking.	
<b>III</b>	<b>REHABILITATION</b>		<b>9</b>
	6	Child Line India Foundation (CIF), Integrated Programme for Street Children, CRY (Child Rights and You) and Save the Children.	
	7	Improving Infant & Young Child feeding, ICDS Scheme, Integrated Child Protection Scheme (ICPS), National Child Labour Project (NCLP), and the Sarva Shiksha Abhiyan (SSA).	
<b>IV</b>	<b>LAW'S ENFORCED</b>		<b>9</b>
	8	Juvenile Justice Act 2000, RTE Act, POCSO Act.	
	9	Child Labour Act 1986, Pre-conception and Prenatal Diagnostic Techniques Act 1994, Child Marriage Act 2006, Commission for Protection of Child Rights Act 2005.	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>9</b>
	10	Visit any two institutes working for the welfare of children.	
	11	Discuss and report on the prevalence of child abuse in Kerala (Reports from Media).	
	12	Organise an educational programme for children on the Rights of Children/ Child abuse and safety measures.	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the basics of Child rights	U	PSO-1
CO-2	Analyse the crises faced by children in India	R, Ev	PSO-1
CO-3	Recognise the rights of Children	Ap, Ev	PSO-2, 3
CO-4	Understand the National laws favouring/protecting Children in India	U, Ap	PSO-2,3

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture:4 Tutorial:0 Practical:0)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand the basics of Child rights	U	PO-1 PSO-1	F, C	L	
CO-2	Analyse the crises faced by children in India	R, Ev	PO-1 PSO1,	C	L	
CO-3	Recognise the rights of Children	Ap, Ev	PO-6, 8 PSO-2, 3	F	L	
CO-4	Understand the National laws favouring/protecting Children in India	U, Ap	PO-6, 8 PSO-2,3	F	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs:**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	-	-	-	-	-	-	3	-	-	-	-	-	-	-
CO 2	2	-	-	-	-	-	-	3	-	-	-	-	-	-	-
CO 3	-	2	3	-	-	-	-	-	-	-	-	-	3	-	3
CO 4	-	2	3	-	-	-	-	-	-	-	1	-	2	-	2

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics:**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓

**Reference books:**

1. Ishay, Micheline R, (2004) The History of Human Rights, New Delhi, Orient Longman
2. Levin, Leah, (2006) Human Rights-Questions and Answers (South Asia Human Rights Documentation Centre Introducing Human Rights, Delhi, Oxford University Press
3. Abdulrahim P (2008). Human Rights in International Relations' New Delhi: Manak Publications
4. J. Alberto del Real Alcala · (2017); Human Rights Issues and Vulnerable Groups; current and future developments in law, Bentham books publication
5. Vinod Sharma (2002); Human rights violation: a global phenomenon; APH publication cooperation, New Delhi

**Web References:**

1. [https://www.google.co.in/books/edition/Human\\_Rights\\_Violation/VqrXQpxrG2UC?hl=en&gbpv=1&dq=human+rights+reference+books&printsec=frontcover](https://www.google.co.in/books/edition/Human_Rights_Violation/VqrXQpxrG2UC?hl=en&gbpv=1&dq=human+rights+reference+books&printsec=frontcover)
2. [https://www.makkalahakku.com/childrens-rights-according-to-the-indian-constitution.html#:~:text=Children's%20Rights%20according%20to%20the%20Indian%20Constitution&text=Right%20to%20equality%20\(Article%2014,banded%20labour%20\(Article%2023](https://www.makkalahakku.com/childrens-rights-according-to-the-indian-constitution.html#:~:text=Children's%20Rights%20according%20to%20the%20Indian%20Constitution&text=Right%20to%20equality%20(Article%2014,banded%20labour%20(Article%2023)



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK5SECHSC300</b>				
Course Title	<b>DEVELOPMENTAL JOURNALISM</b>				
Type of Course	<b>SEC</b>				
Semester	V				
Academic Level	300-399				
Course Details	Credit	Lecture per week	Tutorial per week	Practica per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites	1. for the students of Home Science Major				
Course Summary	Development journalism plays a pivotal role in communicating development issues, policies, and initiatives to diverse audiences. In the context of home science, which encompasses various aspects of domestic life, this course explores the intersection of journalism and development to empower students with the skills and knowledge necessary to effectively communicate development-related topics within the realm of home science. Through theoretical insights, practical exercises, and case studies, participants will learn how to engage with audiences, raise awareness, and promote positive change in areas such as nutrition, family dynamics, household management, and sustainable living.				



**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>INTRODUCTION TO DEVELOPMENT JOURNALISM</b>		<b>12</b>
	1	Definition and principles and evolution of development journalism.	
	2	Role of journalism in promoting social change and development.	
	3	Overview of key developmental issues in home science- Nutrition and food security, family dynamics and welfare, household management practices, sustainable living and environmental awareness.	
	4	Overview of key development issues and global challenges – Unemployment, Poverty, Climate Change, Illiteracy, Gender Inequality.	
	5	Home Science and its relevance to development journalism	
<b>II</b>	<b>STORYTELLING TECHNIQUES FOR DEVELOPMENT JOURNALISM</b>		<b>12</b>
	1	Identifying compelling narratives in home science	
	2	Structuring stories for maximum impact and engagement	
	3	Incorporating data and evidence into storytelling	
<b>III</b>	<b>RESEARCH AND REPORTING IN HOME SCIENCE JOURNALISM</b>		<b>12</b>
	1	Interviewing techniques for capturing diverse perspectives and voices	
	2	Sources of Information, Fact-checking and verifying information	
	3	Principles of script writing for Radio, Television Programme, News article for online, offline journalism and print media	
<b>IV</b>	<b>MULTIMEDIA TOOLS AND PLATFORMS FOR DEVELOPMENT JOURNALISM</b>		<b>12</b>
	1	A brief Introduction to multimedia storytelling techniques- Interactive infographics, interactive maps, data visualization, audio-slideshows, virtual reality and augmented reality	
	2	Ethics and best practices in online journalism Understanding Community-based journalism approaches- participatory journalism, civic journalism, solutions journalism, collaborative journalism, and community driven reporting.	
	3	Leveraging data journalism techniques to visualize and analyze development data	

	4	Advocacy- meaning, types, tools and techniques and approaches of advocacy, advocacy planning cycle.	
	5	Promoting dialogue and participation around home science issues- Participatory Workshops, Focal group discussions, Community Meetings, community forums, community surveys, neighbourhood networks.	
<b>V</b>	<b>RELATED EXPERIENCE</b>		12
	1	Conducting interviews with experts and community members,	
	2	Utilizing social media, blogs, and podcasts for dissemination of information on developmental issues related to home science.	
	3	Creating multimedia content (videos, podcasts, infographics) to enhance storytelling -Incorporating data, visuals, and multimedia elements into storytelling	

### COURSE OUTCOMES

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the principles and practices of development journalism within the context of home science.	U	PSO-1,2
CO-2	Explore key development issues related to nutrition, family welfare, household management, and sustainability.	U,R	PSO 1
CO-3	Develop skills in researching, reporting, and writing articles on home science topics with a development perspective.	Ap	PSO 3,5
CO-4	Gain insights into multimedia journalism tools and platforms for disseminating development-related content.	Ap,C	PSO 4
CO-5	Engage with stakeholders and communities to foster dialogue and collaboration around development initiatives.	Ap	PSO1,5,7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

Name of the Course: Credits: 3:0:0 (Lecture:3 Tutorial:0 Practical:0)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	CO-1	PO-1,6	U	F, C	L	
2	CO-2	PO-2	U,R	P	L	
3	CO-3	PO-2,3	Ap	P	L	
4	CO-4	P- 6,7	Ap,C	C, P	L	P
5	CO-5	PO -4,6,8	Ap	C,P	L	P

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	1							1					1		
CO 2	1	1							1						
CO 3			2						1	3					
CO 4				2									1	3	
CO 5	1				3		3				2		2		3

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓
CO 5	✓	✓		✓

**References:**

1. Chawla Abhay (2021); “New media and Online Journalism-Handbook for media studies; Pearson Education
2. Narula Uma (2019)” Development Communication- Theory and Practice; HAR-ANAND PUBLICATION PVT LTD.
3. Bill Kovach and Tom Rosenstiel (1900) The Elements of Journalism, Revised and: What Newspeople Should Know and the Public Should Expect; 4<sup>th</sup> edition; Crown Publishers.
4. Barun Roy (2013) “Beginners guide to Journalism and Mass Communication, Pustak Mahal.
5. Aggarwal Virbhala (2012); “Handbook of Journalism and Mass Communication, Concept Publishing Co.
6. Nayyar Deepak (2007); “Modern Mass Communication- Concepts and Processes”.
7. Murthy D (2009); Development Journalism- What next? Kanishka Publishing House
8. Friend C; Singer J (2007); Online journalism: Ethics, Traditions and Transitions; Routledge.



University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK5SECHSC301				
Course Title	APPLIED ART ON SOFT FURNISHINGS				
Type of Course	SEC				
Semester	V				
Academic Level	300 – 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-		3
Pre-requisites					
Course Summary	This course deals with the principles of art and colour , as well as various methods of painting and dyeing, embroidery, and surface embellishment in fabrics. It also focuses on the knowledge and techniques required to improve the aesthetic appearance of the fabric through creativity, imagination, and skills that will ultimately enhance the appearance of the interior. Further it induces exploration for different combinations to produce creative surfaces on soft furnishings.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>APPLICATION OF ART PRINCIPLES AND PRINCIPLES OF COLOUR IN FABRICS</b>		<b>9</b>
	1	Harmony	
	2	Balance	
	3	Rhythm	
	4	Emphasis	
	5	Proportion	
	6	Colour – Hue ,Value and Intensity	
<b>II</b>	<b>PRINTING AND DYEING METHODS</b>		<b>9</b>

	7	Block printing	
	8	Tie & Dye	
	9	Batik	
	10	Ikat	
	11	Stencil printing	
	12	Flock printing	
	13	Fabric painting	
<b>III</b>	<b>EMBROIDERY</b>		<b>9</b>
	9	Equipment/ tools used	
	10	Methods of transferring designs to fabric	
	11	Classification of embroidery stitches	
	12	Outline stitches- Running , Back, Stem	
	13	Looped stitches:- Chain , Blanket, Lazy daisy, Feather	
	14	Knot stitches:- French knot, Bullion,	
	15	Flat stitches:- Satin, Long and short	
	16	Catch stitches:- Herringbone, Couching and Cross stitch	
<b>IV</b>	<b>SURFACE EMBELLISHMENT</b>		<b>9</b>
	17	Applique	
	18	Cutwork	
	19	Quilting	
	20	Bead work	
	21	Sequin work	
	22	Mirror work	
	23	Kundan / Stone work	
	24	Glitter art	
	25	Crocheting, Draw thread	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>9</b>
	26	Prepare samples of fabric using various printing and dyeing techniques	
	27	Prepare samples of embroidery stitches	
	28	Apply any two surface embellishment on a table cloth	
	29	Prepare a wall hanging using fabric paint	
	30	Prepare samples for tie & dye, batik, block, flock and stencil printing	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand and relate the art principles in fabrics embellishment in an effective way	U,C	PSO-1,2,5
CO-2	Create and apply art principles to embellish fabrics effectively	U, Ap,C	POS-1, 2,3,5
CO-3	Apply basic and decorative embroidery stitches in developing products with fabrics.	U,Ap,C	POS-2,3,5,6
CO-4	Apply different methods of printing and dyeing	U, Ap	POS-2,3

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand and relate the art principles in fabrics embellishment in an effective way	PSO-1,2	U	F,C,M,P	L,T	
CO-2	Apply art principles to embellish fabrics effectively	POS-2,3	Ap	F,C,M,P	L,T	
CO-3	Apply basic and decorative embroidery stitches in developing products with fabrics.	POS-2,3	Ap	F,C,M,P	L,T	
CO-4	Apply different methods of printing and dyeing	POS-2,3	Ap	F,C,M,P	L,T	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

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**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	P O1	P O2	P O3	P O4	P O5	PO 6	PO 7	PO 8
<b>CO 1</b>	3	3	3	-	3	1	1	3	2	3	-	-	3	-	1
<b>CO 2</b>	3	3	3	-	3	1	1	3	2	3	--	--	3	-	1
<b>CO 3</b>	3	3	3	-	3	1	1	3	2	3	-	--	3	-	1
<b>CO 4</b>	3	3	3	-	3	1	1	3	2	3	-	-	3	-	1

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓		✓	✓
CO 3	✓		✓	✓
CO 4	✓		✓	✓



**References:**

1. Andal, A., & Parimalam, P. (2008). A Text book of Interior decoration. Satish Serial Publishing House.
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7. Seetharaman, P., & Pannu, P. (2009). Interior design and decoration. CBS Publishers and Distributors Pvt Ltd.
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# **SEMESTER 6**



## University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK6DSCHSC300</b>				
Course Title	<b>CLINICAL NUTRITION AND DIETETICS</b>				
Type of Course	<b>DSC</b>				
Semester	VI				
Academic Level	300-399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	-	4
Pre-requisites					
Course Summary	<p>The course on medical nutrition therapy provides a comprehensive overview of the application of nutritional principles in the prevention and treatment of various medical conditions. It covers topics on understanding the role of specific nutrients in health and disease, developing dietary plans tailored to individual patient needs, and monitoring the effectiveness of dietary interventions. Through a combination of theoretical knowledge and practical skills, students learn to apply evidence-based nutritional strategies to optimize patient outcomes and promote overall health and well-being.</p>				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>MODULE- 1 DIET THERAPY, NUTRITIONAL CARE IN ENERGY IMBALANCE</b>		<b>15</b>
	1	<b>INTRODUCTION TO DIETETICS</b> –Principles of Diet Therapy, Therapeutic modification of normal diets, Types of Hospital Diets- Clear-fluid, full fluid and soft diet, Growth and scope of Dietetics, Role of Dietitians , Indian Dietetic Association, Nutrition Society of India	
	2	<b>ENERGY IMBALANCE -OBESITY</b> – Definition, types, aetiology, assessment, complications, Management of Obesity- MNT ,Special diet -keto ,low carb and intermittent	
	3	<b>UNDERWEIGHT</b> –Aetiology, Complications, Dietary Modifications	
<b>II</b>	<b>MODULE II – MEDICAL NUTRITION THERAPY IN GASTRO-INTESTINAL AND LIVER DISORDERS</b>		<b>15</b>
	5	<b>PEPTIC ULCER</b> - Definition ,Aetiology ,Symptoms, Diagnosis, MNT of Peptic Ulcer	
	6	<b>CONSTIPATION-Definition</b> ,Aetiology ,Rome IV Diagnostic criteria ,Dietary management ,Guidelines for High fibre diet	
	7	<b>DIARRHOEA</b> - WHO Definition,Types ,aetiology ,MNT ,Low fibre low residue diet, Probiotics,Prebiotics and the Gut Microbiota	
	8	<b>LIVER DISORDERS</b> : Functions of Liver, Liver function tests, agents responsible for liver damage,Jaundice, Non-alcoholic fatty liver disease (NAFLD) <b>HEPATITIS ,CIRRHOSIS AND HEPATIC COMA</b> - Causes, symptoms, Dietary management.	

<b>III</b>	<b>MODULE III MEDICAL NUTRITION THERAPY IN RENAL AND CARDIOVASCULAR DISORDERS</b>		<b>15</b>
	9	<b>NEPHROSIS AND NEPHRITIS</b> – Functions of kidneys, Renal function tests, Causes, symptoms, Dietary management	
	10	<b>RENAL FAILURE AND RENAL CALCULI</b> - Causes, types and Dietary management. Dialysis-Types and Dietary Treatment	
	11	<b>ATHEROSCLEROSIS, HYPERLIPIDEMIA, and HYPERTENSION</b> -Etiology, Clinical Symptoms, Lifestyle & Dietary guidelines ,DASH Diet	
<b>IV</b>	<b>MODULE IV MEDICAL NUTRITION THERAPY IN CANCER AND AIDS</b>		<b>15</b>
	12	<b>CANCER</b> - Definition, Aetiology, Symptoms, Dietary Management,Role of Functional Foods in Prevention of Cancer.	
	13	<b>AIDS</b> - Aetiology, Symptoms, Dietary Management,Role of antioxidants	
	14	<b>DIABETES MELLITUS</b> -Types, Aetiology, Symptoms, Diagnosis, Complications, Treatment–Exercise, Hypoglycaemic drugs, Insulin and Dietary Management-Glycemic Index,glycemic load ,carbohydrate counting and Food Exchange List	
	15	<b>FEBRILE CONDITIONS</b> –Aetiology ,symptoms and dietary management , Types- Short Duration- Typhoid, Long Duration- Tuberculosis.	
<b>V</b>	<b>PRACTICALS</b>		<b>15</b>
	23	Planning ,preparing and serving diets for obesity, underweight, Diabetes ,Hypertension,Atherosclerosis	
	24	Planning ,preparing and serving diets for Nephrosis , Nephritis, Cirrhosis	
	25	Planning ,preparing and serving diets for Constipation, Diarrhoea ,Peptic Ulcer,	
	26	Planning ,preparing and serving diets for Typhoid , Tuberculosis ,AIDS,Cancer,	
	27	Computer Assisted Instructions (CAI) - Diet Planning and calculation using Diet Cal ,calorie counter, my fitness pal or any software	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Integrate knowledge of research principles and methods associated with nutrition and dietetics practice	U	PSO-1,2
CO-2	Collect, organize and assess data relating to the health and nutritional status of individuals, groups and populations.	R, U	PSO-2
CO-3	Develop individualized nutrition care plans for patients with different nutritional needs	Ap	PSO-5
CO-4	Demonstrate ethical and professional conduct in interactions with patients	Ap	PSO-5
CO-5	Independently plan and execute a research project in regard to nutrition and dietetics practice.	C	PSO-3

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1.	Integrate knowledge of research principles and methods associated with nutrition and dietetics practice	PSO-1/PO2	U	F, C	L	
2.	Collect, organize and assess data relating to the health and nutritional status of individuals, groups and populations.	PSO-2	R,U	P	L	P

3.	Develop individualized nutrition care plans for patients with different nutritional needs	PSO-5	Ap	P		P
4.	Demonstrate ethical and professional conduct in interactions with patients	PSO-5	Ap	F,C	L	
5.	Independently plan and execute a research project in regard to nutrition and dietetics practice.	PSO-3	C	M		P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PSO 1	PSO 2	PS O3	PS O4	PS O5	PS O6	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
<b>CO 1</b>	1	-	-	-	-	-	1							2
<b>CO 2</b>	2	3	-	-	-	-		2		3				
<b>CO 3</b>	-	-	1	-	-	-			3				2	
<b>CO 4</b>	-	-	2	3	-	-			2					3
<b>CO 5</b>	-	1	-	-	-	-				3			3	

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- § Quiz / Assignment/ Quiz/ Discussion / Seminar
- § Midterm Exam
- § Programming Assignments
- § Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4		✓		✓
CO 5		✓		✓

**REFERENCES**

**BOOKS**

1. Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Delhi: Phoenix Publishing House Pvt. Ltd.
2. Longvah T, Ananthan R, Bhaskarachary K and Venkaiah K (2017). Indian Food Composition Tables. National Institute of Nutrition, Indian Council of Medical Research, Department of Health Research, Ministry of Health and Family Welfare, Government of India, Hyderabad.
3. NIN (2011). Dietary Guidelines for Indians- A Manual. Second edition. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad



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7. Mahan, L. K. (2016). *Krause's Food & the Nutrition Care Process-E-Book: Krause's Food & the Nutrition Care Process-E-Book*. Elsevier Health Sciences.
8. McIntosh, S. N. (2016). *Williams' Basic Nutrition & Diet Therapy: First South Asia Edition-E-Book*. Elsevier Health Sciences.
9. Noland, D., Drisko, J. A., & Wagner, L. (Eds.). (2020). *Integrative and functional medical nutrition therapy: Principles and practices*. Springer Nature.
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#### **E-RESOURCES**

<https://pubmed.ncbi.nlm.nih.gov/>

<https://www.heart.org/>

<https://www.nih.gov/>

<https://www.eatright.org/>

<https://egyankosh.ac.in//handle/123456789/33416>



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK6DSCHSC301</b>				
Course Title	<b>APPAREL DESIGNING- FABRIC TO GARMENT</b>				
Type of Course	<b>DSC</b>				
Semester	VI				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2 hours	5
Pre-requisites	1. 2.				
Course Summary	The course on Apparel Designing will impart a coherent basic knowledge of the subject of Apparel Designing and construction. It helps to acquire knowledge of the process of taking proper body measurements and using them in drafting/adjusting patterns, skills required for constructing selected types of garments.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>TOOLS IN CLOTHING CONSTRUCTION</b>		<b>15</b>
	1	Tools and equipment required for measuring, drafting, pinning, marking and cutting, sewing, pressing	
	2	Sewing machine: its main parts and functions, working defects and remedies, care and maintenance, precautions while working on a sewing machine	

<b>II</b>	<b>PATTERN DRAFTING TECHNIQUES</b>		<b>15</b>
	3	Pattern drafting Techniques– Its Principles,Need and Importance in garment construction. Pattern Adaptation and Alteration ,Pattern Truing,Pattern Marking.	
	4	Understanding and creating basic block patterns for various garment type.	
<b>III</b>	<b>TAKING BODY MEASUREMENTS</b>		<b>15</b>
	5	Body measurements-Meaning and importance.Accurately taking and interpreting body measurements to ensure proper fit and proportion to final garment.	
	6	Drafting and Draping, Grading- definition, types manual and computerized.Calculation of fabric for different garments according to size, style and design.	
<b>IV</b>	<b>FABRIC SELECTION AND PREPARATION</b>		<b>15</b>
	7	Fabric selection-properties and suitability for various designs	
	8	Preparation of fabrics for clothing construction- shrinking, straightening, layout, marking, cutting and sewing.	
<b>V</b>	<b>PRACTICAL</b>		<b>15</b>
	9	<b>Seam and seam finishes</b> - French seam, run-n-fell seam, lapped seam, top stitching, piped seam. Finishes- Pinking, Turned and Stitched, Edge stitched, hand overcast, over-locked, piped finish.  <b>Fasteners:</b> button, buttonholes, press buttons, hook-n-eye. <b>Necklines and their finishing:</b> bias binding, bias facing, shaped facing .	
	10	<b>Preparation of paper pattern and construct</b> 1. A-line frock with any type of sleeve and collar for a preschool child 2. Kurthi 3. Pencil pant/Cigarette pant	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Proficient in handling the tools and equipments used in apparel designing	A	PSO-1,2
CO-2	Develop mastery in pattern drafting techniques, adaptation and alteration.	Ap,C	PSO-2,6
CO-3	Develop proficiency in taking body measurement, methods and techniques for calculating fabric for construction	Ap,E	PSO-2,3
CO-4	Develop skills in fabric designing, selection and preparation for construction	Ap, C	PSO-2,6
CO-5	Apply integrated skill in basic construction process and garment construction contributing to the fashion industry with professionalism.	Ap, C	PSO-2,6

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course:** APPAREL DESIGNING- FABRIC TO GARMENT

**Credits:** 4:0:0 (Lecture:3,Tutorial:0,Practical:1)

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	proficient in handling the tools and equipments used in apparel designing	PSO-1,2	A	C,P	L	P
2	develop mastery in pattern drafting techniques, adaptation and alteration.	PSO-2,6	Ap,C	C,M	L	P

3	develop proficiency in taking body measurement, methods and techniques for calculating fabric for construction	PSO-2,3	Ap,E	P,M	L	P
4	develop skills in fabric designing , selection and preparation for construction	PSO-2,6	Ap, C	C,M	L	P
5	apply integrated skill in basic construction process and garment construction contributing to the fashion industry with professionalism	PSO-2,6	Ap,C	C,P,M	L	P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :1,2-2,6-2,3-2,6-2,6**

	PS 01	PSO 2	PS 03	PSO 4	PSO 5	PS 06	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO 1	3	2					2						
CO 2		2				2						2	
CO 3		2	3				2					2	
CO 4		2				1	2		2			2	
CO 5		2				2		2					

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓	✓		✓
CO 4	✓			✓
CO 5	✓			✓

**References**

1. Allec C., Johnson I., Joseph P. (2011). Fabric Science (6th Edition). New York: Fairchild Publications.
2. Corbman P.B. (1985). Textiles-Fibre to Fabric. New York: McGraw Hill Book Co.
3. Gayatri V. (2007). Cutting and Stitching Practical. New Delhi: Asian Publishers.
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7. Sinclair R. (2015). Textiles and Fashion: Materials, Design and Technology. Cambridge: Woodhead Publishing Limited



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK6DSCHSC302</b>				
Course Title	<b>SOCIAL PSYCHOLOGY</b>				
Type of Course	<b>DSC</b>				
Semester	VI				
Academic Level	300-399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4	0	0	4
Pre-requisites	None				
Course Summary	Social psychology plays a vital role in informing and enhancing community work by providing insights into individual behavior, interpersonal dynamics, and societal influences. This course explores the intersection of social psychology and community engagement, equipping students with a deeper understanding of human behavior, group dynamics, and the social factors that impact individuals and communities. The students will also learn how to apply social-psychological principles to address social problems, promote social justice, and empower the members of the community in various community work settings.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>BASICS OF COUNSELLING</b>		<b>9</b>
	1	Concept & Importance of Counselling	
	2	Difference between Communication and Counselling	
	3	Basic Communication Skills for Counsellor	
<b>II</b>	<b>METHODS OF COUNSELLING</b>		<b>9</b>
	4	Techniques of Counselling	
	5	Steps in Counselling Process	
	6	Facilitation of Counselling for different groups	
	7	Different set ups in counselling	

<b>III</b>	<b>INTRODUCTION TO SOCIAL PSYCHOLOGY IN COMMUNITY WORK</b>		<b>9</b>
	8	Understanding Social Psychology- Meaning and definition. Nature and Scope of Social Psychology. Factors influence social interaction- methods of social psychology, socialization process.	
	9	Understanding Social Self, Perceiving people, stereotypes, prejudices, discrimination and attitudes. Understanding boundaries.	
	10	Relationships- Understanding needs and emotions. External sources of attraction: The effects of proximity, familiarity and physical beauty. Sources of liking based on social interaction. Close relationships: Foundations of social life	
<b>IV</b>	<b>PSYCHOLOGY OF WORKING WITH COMMUNITIES</b>		<b>9</b>
	11	Practice of Community Organisation: Community Organisation in slums, rural and tribal areas, Community organization.	
	12	Application of Community organisations in different settings (rural, urban and tribal) and Target Groups (Children Youth, Women, Aged, etc)	
	13	Intervention strategies in community settings: awareness building, organising, activating, people participation, negotiating, lobbying and resource mobilization, resolving group conflicts, programmes planning and service delivery, developing human resources, monitoring and evaluation	
	14	Methods for approaching communities- Techniques for building rapport, empathy, and trust with Community.	
	15	Need based analysis, Community Assessments, Asset- based community development, PRA Techniques, Social Mapping	
	16	Strategies for promoting community resilience, empowering marginalized populations, and challenging systemic oppression.	
<b>V</b>	<b>METHODS OF APPROACHING COMMUNITIES- Related Experiences</b>		<b>9</b>
	1 2 3	Need based assessment in a community Carrying out social mapping of a neighbourhood Plan, organise and execute community interventions based on the skills of social psychology – Rapport building with community	



**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the fundamental principles and theories of counselling and their relevance to community work.	U	PSO-1,2,3
CO-2	Examine the dynamics of interpersonal relationships, group processes, and social networks in the context of community based interventions.	U, Ap	PSO-2
CO-3	Develop skills in communication, empathy, active listening, and conflict resolution to build rapport and trust with members in the community or target group.	Ap, E	PSO-5
CO-4	Apply social psychological concepts and techniques to promote social change, advocate for marginalized populations, and foster community resilience.	Ap, An	PSO-5
CO-5	Plan, organise and execute community interventions based on the skills of social psychology	An, C	PSO-3,4

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: SOCIAL PSYCHOLOGY Credits: 3:0:0 (Lecture:3**

**Tutorial: 0 Practical:0)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	CO-1	PO-1	U	F,C	L	
2	CO-2	PO-6	U,Ap	C	L	
3	CO-3	PO-1,6,8	Ap, E	F,C,P	L	
4	CO-4	PO-4,6	Ap, An	P	L	P
5	CO-5	PO-2,3,4	An, C	P	L	P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PSO 2	PS O3	PS O4	PS O5	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	1	2	2			1							
CO 2		3									3		
CO 3					3	2					2		2
CO 4					3				2		3		
CO 5			2	2				2	2	2			

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓	✓	✓
CO 5	✓	✓		✓

**References:**

1. Baron, R.A. and Byrne, D.(2002) *Social Psychology* (10th Ed).Pearson Education, New Delhi.
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5. Mercer, J. & Clayton, D. (2014), *Social Psychology*, New Delhi: Dorling Kindersley India Pvt. Ltd. 8)
6. Myers, D. G. Sahajpal, P. & Behera, P. (2017), *Social psychology* (10th ed.), McGraw Hill Education.
7. Taylor, S. E. Sears, D. O. & Peplau, L. A. (2017), *Social psychology* (10th ed.), Pearson Education



## University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK6DSEHSC300</b>				
Course Title	<b>FOOD PRODUCT DEVELOPMENT</b>				
Type of Course	<b>DSE</b>				
Semester	VI				
Academic Level	300-399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites	1. 2.				
Course Summary	New food products are continually evolving and being added to the marketplace. This course involves going through the process of developing a new food product from concept, through to market analysis, design, development and evaluation, and finally to market release. On successful completion of this course, students will gain a wide range of knowledge and skills that can be applied for the improvement or development of food products to satisfy consumers' changing demands and to improve business related outcomes.				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>NEW FOOD PRODUCTS</b>		<b>12</b>
	1	Definition and need of product development	
	2	Classification: Line extensions - Repositioning of existing products - New form of existing product - Reformulation - New packaging - Innovative products - Creative products and Value added products	
<b>II</b>	<b>FORMULATION OF NEW PRODUCT DEVELOPMENT</b>		<b>12</b>
	3	Stages/ Phases of New Product Development – idea generation and screening, market research, feasibility studies, consumer research, financial review, product design and formulation.	
	4	Process Development – recipe development and scale-up, consumer trials, market testing, commercialization.	
	5	Quality Assessment of New Developed Products – sensory evaluation, shelf life testing. Packaging and Labelling Protocols. Costing/ Pricing and Economic Evaluation of the Product.	
<b>iii</b>	<b>SPECIALITY FOOD PRODUCTS</b>		<b>12</b>
	6	Speciality Product Development with reference to Health and Nutritional Needs for the following:	
	7	Infant Foods	
	8	Geriatric Foods	
	9	Functional Foods nutraceutical	
	10	Sports Drinks	
<b>IV</b>	<b>FOOD SAFETY IN FOOD PRODUCT DEVELOPMENT</b>		<b>12</b>
	11	Importance of HACCP and GMP in production of foods. Hygiene systems to be followed- Personal hygiene, Work area hygiene, equipment hygiene and food hygiene. Food safety management system-ISO 22000 certification. Intellectual property rights/ Patents.	
<b>V</b>	<b>Related Experiences</b>		<b>12</b>
	12	Market Survey to identify - Nutrition products, Therapeutic products, Specialty products, Technology Driven products	
	13	Selection of target group. Standardization of recipe, Preparation and sensory evaluation. Shelf life, packaging, labeling, costing, storage, transportation and distribution, advertising. Report writing and Presentation.	

**Course Outcomes**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Explain the classification and need of product development	R	PSO-3
CO-2	Summarize the process of new food product development in food industry.	R, U	PSO-2
CO-3	Describe the role ingredients play in the development of new products Use innovative techniques in product development.	R,A	PSO-3
CO-4	Apply various food safety management systems for safe food production.	Ap	PSO-5
CO-5	Design and develop new food products which are nutritious, cost effective and marketable and analyse the quality of the product.	C	PSO-6

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create** Note: 1 or 2 COs/module

**Name of the Course: Credits: 40:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Explain the classification and need of product development	PSO-3	R	F,	T	
2	Summarize the process of new food product development in food industry.	PSO-2	R, U	C	T	

3	Describe the role ingredients play in the development of new products Use innovative techniques in product development.	PSO-2	R, U	P	T	
4	Apply various food safety management systems for safe food production.	PSO-5	Ap	P	T	
5	Design and develop new food products which are nutritious, cost effective and marketable and analyse the quality of the product.	PSO-6	C	M	P	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PO1	PO2	PO3	PO4	PO5	PO6
CO1	-	-	1	-	-	-	1		1			
CO2	-	1	-	-	-	-	1		2			
CO3	-	-	2	-	-	-	1		3			2
CO4	-	-			2		1					2
CO5		-	-	-	-	3	2		3	1		2

**Correlation Levels:**

<b>Level</b>	<b>Correlation</b>
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**References**

1. Jacqueline H. Beckley, M. Michele Foley Elizabeth J. Topp & J. C. Huang Witoon Prinyawiwatkul (2007). Accelerating New Food Product Design and Development. Blackwell Publishing Company. IFT Press. USA
2. Howard R. Moskowitz, I. Sam Saguy & Tim Straus (2009). An Integrated Approach to New Food Product Development. Taylor and Francis Group, LLC. USA
3. Mary Earle and Richard Earle (2008). Case studies in food product development Wood head Publishing Limited and CRC Press LLC. USA
4. Creating New Foods. The Product Developer's Guide: Marie D. Earle and Richard L. Earle (2001). Chadwick House Group Ltd. New Zealand.
5. David H. Lyon, Mariko A. Francombe, Terry A. Hasdell and Ken Lawson (1992). Guidelines for sensory analysis in food product development and quality control. Chapman & Hall, 2-6 Boundary Row, London.





University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK6DSEHSC301				
Course Title	CLIMATE COMMUNICATION				
Type of Course	DSE				
Semester	VI				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites	None				
Course Summary	This course introduces students to Climate change communication as a conscious effort to educate, inform, warn, initiate and resolve the problem of climate crisis, aiming to educate them on the vital part they could play to unravel the gravity of the disaster through their experiences, cultural context and fundamental values. The course envisages to offer a deeper understanding of the subject by effectively communicating the science and associated pressing issues surrounding the climate crisis.				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>UNDERSTANDING CLIMATE CHANGE</b>		<b>12</b>
	1	Climate Change- Concept and significance Impact- Global warming, Greenhouse gas emissions, Melting ice caps and glaciers, Rising sea levels, Ocean acidification.	
	2	Current scenario of Climate Change in India, Impacts-An overview	
	3	Vulnerabilities and Adaptation to Climate Change, Mitigation Techniques-Policies, Technologies, Behavioural changes. Circular Economy-Concept, Importance, Benefits	
	4	Management Strategies adopted globally- Paris Climate Change Agreement 2015, United Nations Framework Convention on Climate Change (UNFCCC), Climate Support Facility, Intergovernmental Panel on Climate Change (IPCC).	
<b>II</b>	<b>FUNDAMENTALS OF CLIMATE COMMUNICATION</b>		<b>12</b>
	5	Climate Change Communication – Understanding the Concept and fundamental terms	
	6	Significance and Need of Communication on Climate Change, Identifying appropriate channels for communication, Role of Effective Communication in addressing Climate Change and achieving Climate Goals	
<b>III</b>	<b>CLIMATE CHANGE COMMUNICATION STRATEGIES</b>		<b>12</b>
	9	Developing a Communication Strategy- Setting objectives, Key personnels, Key messages, Addressing Misinformation and Skepticism in Climate Communication	
	11	Comprehending UN's Sustainable Developmental Goals with special emphasis on SDG 13 for Climate Action	
<b>IV</b>	<b>DISASTER MANAGEMENT</b>		<b>12</b>
	18	Disaster Management- Understanding the Concept, Definition, Need, Significance and Scope.	
	19	Types of Disasters- Natural and Man-made Disasters, Principles of Disaster Management, Disaster Management Cycle	
	20	Disaster Management Techniques - Early warning system, Precautions on Building designs and Constructions in Seismic sensitive zones, Disaster Management Policy	

<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	23	Story Telling- narratives based on actual events and recollecting personal experiences	
	24	Skit/Street play on the topic of climate crisis and enacting the same.	
	25	E-poster preparation with messages for awareness on climate crisis.	

### **COURSE OUTCOMES**

<b>No.</b>	<b>Upon completion of the course the graduate will be able to</b>	<b>Cognitive Level</b>	<b>PSO addressed</b>
CO-1	Understand the concepts underlying Climate Change, it's significance and impact and comprehend on the behavioural changes expected of individuals in achieving climate goals.	U, An	PSO-5, 7
CO-2	Attain knowledge on the basic concepts of Climate Communication and explore the role of effective communication in addressing climate change.	U, An, Ap	PSO-2,
CO-3	Understand and analyse the means and need for developing a strategy that befits proper climate communication without leaving room for misinformation or skepticism	U, An, Ap	PSO-2, 3,4,5
CO-4	Comprehend the concepts, definition, significance and scope of Disaster Management, the Types, Principles, Policy and Cycle involved along with the techniques of Disaster Management	U, An, Ap	PSO-2, 3, 5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Climate Communication Credits: 4:0:0 (Lecture: Tutorial: Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand the concepts underlying Climate Change, its significance and impact and comprehend on the behavioural changes expected of individuals in achieving climate goals.	PSO -5, 7	U, An	F, C	L, T	-
CO-2	Attain knowledge on the basic concepts of Climate Communication and explore the role of effective communication in addressing climate change.	PSO -2,	U, An, Ap	F	L, T	-
CO-3	Understand and analyse the means and need for developing a strategy that befits proper climate communication without leaving room for misinformation or skepticism	PSO -2, 3,4,5	U, An, Ap	C, P	L, T	-
CO-4	Comprehend the concepts, definition, significance and scope of Disaster Management, the Types, Principles, Policy and Cycle involved along with the techniques of Disaster Management	PSO -2, 3, 5	U, An, Ap	C, P	L, T	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs:**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2
CO 2	2	3	-	-	-	-	-	-	-	-	3	-	-	-	-
CO 3	-	-	1	-	-	-	1	-	2	-	3	-	2	-	-
CO 4	-	-	2	3	-	-	2	-	2	-	1	-	3	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics:**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓

**REFERENCES**

1. Drawdown: The Most Comprehensive Plan Ever proposed to Reverse Global Warming, Paul Hawken, 2017, Penguin
2. Climate-Outreach-IPCC-communications-handbook.pdf, 2018, Oxford.
3. Climatic change, Interdisciplinary International Journal, Springer, ISSN 0165-009, <https://link.springer.com/journal/10584>
4. Nature Climate change, ISSN 1758-678X, Springer Nature, <https://www.nature.com/nclimate/>
5. Advances in Climate change Research, ISSN: 1674-9278, Elsevier, Science Direct
6. International Journal of Environment and Climate Change, ISSN: 2581-8627
7. International Journal of Climate Change Strategies and Management <https://www.emerald.com/insight/publication/issn/1756-8692>



## University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK6DSEHSC302				
Course Title	<b>DEVELOPMENTAL CHALLENGES OF CHILDREN WITH DISABILITIES</b>				
Type of Course	DSE				
Semester	VI				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites					
Course Summary	The course introduces students to various disabilities in childhood years. It highlights aspects such as aetiology, characteristics and management of different disabilities. The educational practices in special education and inclusive education are also dealt. It also provides an overview of policies and laws related to disability.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>INTRODUCTION TO CHILDHOOD DEVELOPMENTAL DISORDERS AND DISABILITIES</b>		<b>12</b>
	1	Introduction to children with special needs – meaning, definition, classification.	
	2	Concept of special, inclusive and home based education.	

<b>II</b>	<b>COMMON CHILDHOOD DEVELOPMENTAL DISORDERS AND DISABILITIES</b>		<b>12</b>
	3	Causes, Characteristic, identification, assessment and intervention with reference to: Loco motor disability Visual disability Auditory and speech disability Intellectual disability Autism Learning disability ADHD	
<b>III</b>	<b>FAMILY HAVING CHILDREN WITH DISABILITIES</b>		<b>12</b>
	4	Role of parents in upbringing special children.	
	5	Parental acceptance and coping with the presence of special child in the family	
	6	Stages parents go through to come to the terms with the condition of the disabled child.	
	7	Facilitating and debilitating parental behaviour in the development of special child.	
<b>IV</b>	<b>PROGRAMS AND POLICIES FOR CHILDREN WITH DISABILITIES</b>		<b>12</b>
	8	Rights of the child with disability.	
	9	Policy and laws related to children with disability.	
	10	Interventions strategies adopted for children with disabilities Issues related to policies and programs in the area of special needs in India	
<b>V</b>	<b>RELATED Experiences</b>		<b>12</b>
	11	Visits to organizations working with children with disabilities.	
	12	Interview the teachers of special school and parents to find out about their experiences, hopes, attitudes and difficulties faced.	
	13	Observing children with disabilities in families and institutions.	
	14	Exploring audio-visual sources and AI tools applications for education with reference to children with disabilities and their families.	
	15	Gather information of latest trends, services available etc. through newspapers, magazine and other media.	



**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understanding different developmental challenges in children.	U	PSO- 2
CO-2	Assessing and diagnosing different types of disabilities/ developmental challenges in children.	U, Ap	PSO- 1,3,6
CO-3	Implementing Inclusive Education practices in diverse classroom settings.	Ap, An	PSO- 2,4,5,7
CO-4	Helping the disabled by making them aware of the existing assistive technology, AI tools and its availability and use.	Ap, An, E	PSO-4,6,7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/P SO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Understanding different developmental challenges in children.	PO-1,8 PSO-2	U	F, C	L	
2	Assessing and diagnosing different types of disabilities/ developmental challenges in children.	PO-2,3 PSO-1,3,6	U, Ap	C, P	L	
3	Implementing Inclusive Education practices in diverse classroom settings.	PO-6,7,8 PSO-2,4,5,7	Ap, An	C, P	L	
4	Helping the disabled by making them aware of the existing assistive technology, AI tools and its availability and use.	PO-4,5,7 PSO-4,6,7	Ap, An, E	P, M	L	P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	-	3	-	-	-	-	-	3	-	-	-	-	-	-	2
CO 2	2	-	2	-	-	2	-	-	3	2	-	-	-	-	-
CO 3	-	2	-	3	3	-	2	-	-	-	-	-	3	3	3
CO 4	-	-	-	2	-	2	3	-	-	-	3	3	-	2	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Tool evaluation
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Tool Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓	✓	✓
CO 4	✓	✓	✓	✓

**Reference Books:**

1. Cynthia, S. M. (2005). *Understanding Special Education: A Helpful Handbook For Classroom Teachers* [Paperback] Scholastic Inc.
2. Dash M, (2007), *Education of Exceptional Children*, Atlantic Publishers and distributors, New Delhi.
3. Diane, S. (2005 ). *Including Children With Special Needs: A Handbook For Educators And Parents*, USA: Greenwood publishers.
4. Hallahan, D.P.& Kauffman, J.M. (1998) *Exceptional Children.*, New Jersey: Prentice Hall.
5. Heward, W.(2009). *Exceptional Children: An Introduction to Special Education (Book Alone): International Edition*. Pearson Education, Limited.
6. Kumar, S.G., Roy, G., & Kar, S.S. (2012). Disability and rehabilitation services in India: Issues and Challenges. *Journal of Family Medicine and Primary Care*, 1(1), 69– 73. doi: 10.4103/2249-4863.94458.
7. M.K.C Nair (2014), *The Development of the Infant and the Young Child: Normal and Abnormal*.
8. Mangal, S.K. (2009). *Educating Exceptional Children: An Introduction to Special Education*, Phi Learning.
9. Singh, B. (2005). *Modern Teaching of Exceptional Children*, Agra: Anmol Publishers.

**Web Resources:**

1. <https://www.unicef.org/disabilities/>
2. <https://violenceagainstchildren.un.org>
3. <https://www.sciencedirect.com/rights-disabled-children/>
4. <https://childcare.gov/consumer-education/services-for-children-with-disabilities>



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK6DSEHSC303</b>				
Course Title	<b>INTERIOR FINISHES</b>				
Type of Course	<b>DSE</b>				
Semester	VI				
Academic Level	300 – 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites	1. 2.				
Course Summary	This course enables the students to gain knowledge on how to finish floors, walls, ceilings, and wood with innovative materials that improve the aesthetics of the interiors and form a decorative item. It also helps students understand the special care required for the floor, walls, and ceilings.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>WALL FINISHES</b>		<b>15</b>
	1	Meaning	
	2	Structural wall finishes- Cladding, Tiles , wood , terracotta and stone	
	3	Applied wall finishes- glass, mica, murals	
	4	Fabric and Mirror wall	

	5	Wall papers- Kinds of wall papers, Application of wall papers	
	6	Metal wall art, Stencil art,	
	7	Paints- Types of wall paint finishes for interior- Matte, textured, satin, eggshell , semi-gloss, high gloss , supermat	
	8	Factors to be considered while choosing paint finish	
<b>II</b>	<b>CEILING FINISHES</b>		<b>15</b>
	9	Meaning	
	10	Types of ceiling finishes	
	11	Treatment- plastering, embossing, fresco, glass, paints	
	12	False ceilings and innovative materials	
	13	Factors to be considered while choosing ceiling finishes	
<b>III</b>	<b>FLOOR FINISHES</b>		<b>15</b>
	14	Meaning	
	15	Hard floors- Terrazzo, wood, mosaic, tiles, marble, granite, epoxy	
	16	Semi hard floors- Vinyl, Linoleum. Rubber and cork	
	17	Soft floors furnishings- PVC, rubber, carpets	
	18	Factors to be considered while choosing floor finishes	
<b>IV</b>	<b>WOOD FINISHES</b>		<b>15</b>
	19	Types of hard and soft woods	
	20	Wood panelling - wall, floors and ceiling	
	21	Characteristics of varnish, Process of varnishing	
	22	Termite proofing	
	23	Water proofing	
	24	Acoustics	
	25	Thermal comfort	
	26	Fire proofing	
	27	Care and maintenance	
	28	Factors to be considered while choosing wood finishes	

<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>15</b>
	29	Conduct a survey to analyze the market and consumer preferences of materials used of interior finishes	
	30	Prepare a portfolio on the materials used in finishing wall, ceiling, floor and wood	
	31	Visit households and evaluate different materials used in for interior decoration.	

### **COURSE OUTCOMES**

<b>No.</b>	<b>Upon completion of the course the graduate will be able to</b>	<b>Cognitive Level</b>	<b>PSO addressed</b>
CO-1	Identify and apply the types of structural and applied wall finishes	U, Ap,C	PSO- 1,2,3
CO-2	Classify and compare different paint finishes	U, E,An	PSO- 1,2,3
CO-3	Analyse the different treatments of ceiling finishes with innovative materials	U, An, C	PSO- 1,2,3, 5,6
CO-4	Evaluate and apply various wood finishes based on its care and maintenance	U,E,Ap	PSO- 1,2,3, 5,6
CO-5	Evaluate and apply the types of hard , semi hard and soft finishes based on care and maintenance	U,E, Ap	PSO- 1,2,3, 5,6
CO6	Identify various wood finishes based on its care and maintenance	U, An,	PSO- 1,2,3, 5,6

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Interior Finishes Credits: 4:0:0**

**(Lecture:Tutorial:Practical)**

<b>CO No.</b>	<b>CO</b>	<b>PO/PSO</b>	<b>Cognitive Level</b>	<b>Knowledge Category</b>	<b>Lecture(L)/ Tutorial (T)</b>	<b>Practical (P)</b>
CO-1	Identify and apply the types of structural and	PSO- 1,2,3 PO-	3	F, C,P,M	L,T	

	applied wall finishes	1, 3, 6				
CO-2	Classify and compare different paint finishes	PSO-1,2,3 PO-1, 6,	3	F, C,P,M	L,T	
CO-3	Analyse the different treatments of ceiling finishes with innovative materials	PSO-1,2,3, 5,6 PO-1, 2,6	3	F, C,P,M	L,T	
CO-4	Evaluate and apply various wood finishes based on its care and maintenance	PSO-1,2,3, 5, PO-1, 3,6	3	F, C,P,M	L,T	
CO-5	Evaluate and apply the types of hard , semi hard and soft finishes based on care and maintenance	PSO-1,2,3, 5,6 PO-1,3,6	3	F, C,P,M	L,T	
CO-6	Identify various wood finishes based on its care and	PSO-1,2,3, 5,6 PO-1,2,3,6	3	F,C,P,M		

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
<b>CO 1</b>	3	3	2	-	3	1	-	3	2	2	2	-	3	-	-
<b>CO 2</b>	3	3	2	-	3	1	-	3	3	3	2	-	3	-	-
<b>CO 3</b>	3	3	3	-	3	1	3	3	3	3	2	-	3	-	-

<b>CO 4</b>	3	3	3	-	3	1	-	3	3	3	2	-	3	-	-
<b>CO 5</b>	3	3	-	-	3	1	-	3	3	3	2	-	3	-	-
<b>CO6</b>	3	3	3	-	3	-	-								

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓	✓	✓
CO 4	✓		✓	✓
CO 5	✓			✓
CO 6	✓	✓		

**References:**

1. Clifton.c.etal, (1995), The Complete Home Decorator, Conran octopus Ltd, London.
2. Innes,J. (1990), Exterior Detail, Collins and Brown Ltd, London.
3. Levine M (1998). Living rooms, Rockport publishers, USA.
4. Love.G. (2000), Insideout, Conron octopus Ltd, London.
5. Ostrow.J. (2001), Painting rooms, Rockport publishers, USA.



6. Spancer, H. and Churchill, (1990), *Classic English Interiors*, Anaya Publishers Ltd,
7. Wendy Baker · (2009), *Complete Book of Curtains, Drapes and Blinds Design Ideas for Every Type of Window, Treatment*, Pavilion Books Publishers. ISBN:9781843405054, 1843405059
8. Wilhide,E and Copestick,I. (2000). *Contemporary decorating*, Conran Octopus Ltd., London.



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK6DSEHSC304</b>				
Course Title	<b>NUTRITIONAL CONCERNS IN PUBLIC HEALTH</b>				
Type of Course	<b>DSE</b>				
Semester	VI				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	-	4
Pre-requisites					
Course Summary	The focus of this course is identifying health and nutrition problems and integrating nutritional services within the community and promoting food and nutrition security influencing health through sustainability. This course will provide basic knowledge and skills relevant to the practice of community nutrition, scope and perspectives for resolving public nutrition problems, need for community nutrition programs, food and nutrition policy and management of community programs.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>NUTRITIONAL PROBLEMS OF COMMUNITY</b>		<b>15</b>
	1	Meaning and scope of public health nutrition, Introduction and relevance to nutritional problems in India	
	2	Etiology and preventive strategies for Undernutrition, Protein Energy Malnutrition, Iron deficiency Anaemia, Vitamin A deficiency, Iodine deficiency disorders, Fluorosis, Scurvy	
	3	Etiology and preventive strategies for Obesity, Cancer, Coronary Heart Disease, Diabetes	
	4	Etiology and preventive strategies for Tuberculosis, AIDS, Diarrhoea, Viral Hepatitis	

<b>II</b>	<b>STRATEGIES FOR IMPROVING HEALTH STATUS OF THE COMMUNITY</b>		<b>15</b>
	5	Diet diversification, food fortification, supplementation, genetic modification	
	6	Potable water and sanitation, immunization	
	7	Promotion of optimal infant and young child feeding practices, Growth Monitoring and Promotion (GMP)	
	8	Sustainable Development Goals	
<b>III</b>	<b>FOOD AND NUTRITION SECURITY</b>		<b>15</b>
	9	The National Food Security Bill 2011	
	10	Concept and components of improving food and nutrition security	
	11	Determinants of food and nutrition security	
	12	Overview of NFHS 5	
<b>IV</b>	<b>NUTRITION POLICY, PROGRAMMES AND ORGANIZATIONS TOWARDS MEETING GLOBAL NUTRITION TARGETS</b>		<b>15</b>
	13	National Nutrition Policy	
	14	ICDS, Antyodaya Anna Yojna, Pradhan Mantri Poshan Shakti Nirman, Poshan Abhiyaan	
	15	National Programme for prevention of Anaemia, Vitamin A deficiency, Iodine deficiency disorders, National Programme for prevention of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)	
	16	National Organization- ICAR, ICMR, NIN, CFTRI International Organization-WHO, UNICEF, WFP, CARE	
<b>V</b>	<b>RELATED EXPERIENCE (ANY ONE)</b>		<b>15</b>
	17	Nutrition education to community on deficiency diseases	
	18	Preparing project report on prevalence of lifestyle diseases in community and AI applications to public health nutrition	
	19	Case study of anaemia among adolescent girls	
	20	Spot observations of programmes through field visits in ICDS centers	

**PROGRAMME SPECIFIC OUTCOMES (PSO)**

<b>No.</b>	<b>Upon completion of the programme the graduate will be able to</b>	<b>PO No.</b>
PSO-1	Appreciate and leverage the symbiotic relationship among the five core disciplines of Home Science: Resource Management, Food Science & Nutrition, Textiles and Clothing, Child Development and Family Studies, and Extension and Communication.	PO-1, PO-3, PO-6, PO-7, PO-8
PSO-2	Acquire professional skills in food, nutrition, textiles, housing, product development, communication technologies, and child development, enabling them to excel in diverse career paths.	PO-4, PO-5, PO-6, PO-7, PO-8
PSO-3	Promote research, innovation, and product development across all disciplines of Home Science, fostering advancement and addressing societal needs.	PO-1, PO-2, PO-3, PO-5, PO-8
PSO-4	Enhance digital literacy and utilize digital tools for real-time problem-solving and ideation in various areas of Home Science.	PO-1, PO-2, PO-6, PO-7
PSO-5	Translate scientific knowledge from the laboratory into practical solutions that benefit individuals and communities, bridging the gap between academia and society.	PO-1, PO-2, PO-5
PSO-6	Acquire entrepreneurial skills to achieve economic empowerment for themselves and contribute to the economic development of their communities.	PO-1, PO-2, PO-3, PO-4, PO-5, PO-8
PSO-7	Implement sustainable practices and advocate for environmentally friendly approaches in all aspects of Home Science- Resource Management, Food Science & Nutrition, Textiles and Clothing, Child Development and Family Studies, and Extension and Communication	PO-3, PO-5, PO-7, PO-8

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the scope, prevalence and relevance of nutritional problems of community	U, An	PSO-1, PSO-7
CO-2	Learn the strategies for combating nutritional problems	U, An	PSO-1
CO-3	Understand the concept, importance and determinants of food and nutrition security	U, An	PSO-1, PSO-2, PSO-3, PSO-7
CO-4	Understand the national, international organizations and programmes meeting global nutrition targets	U, An	PSO-1
CO-5	Implement the principle of public health among community	Ap, An, E, C	PSO-1, PSO-2, PSO-3, PSO-4, PSO-5, PSO-7

**Concerns In Public Health Nutrition: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Understand the scope, prevalence and relevance of nutritional problems of community	PSO-1, PSO-7	U, An	F, C	L	-
2	Learn the strategies for combating nutritional problems	PSO-1	U, An	F, C, P	L	-

3	Understand the concept, importance and determinants of food and nutrition security	PSO-1, PSO-2, PSO-3, PSO-7	U, An	F, C, P	L	-
4	Understand the national, international organizations and programmes meeting global nutrition targets	PSO-1	U, An	F, C	L	-
5	Implement the principle of public health among community	PSO-1, PSO-2, PSO-3, PSO-4, PSO-5, PSO-7	Ap, An, E, C	F, C, P	-	P

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
<b>CO 1</b>	1	-	-	-	-	-	1	1	1	-	-	-	-	-	-
<b>CO 2</b>	1	-	-	-	-	-	-	2	2	2	-	-	1	1	1
<b>CO 3</b>	2	2	3	-	-	-	1	2	2	-	-	-	-	-	1
<b>CO 4</b>	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-
<b>CO 5</b>	1	2	3	3	2	-	2	3	3	3	3	3	3	3	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓	✓		✓
CO 3	✓			✓
CO 4				✓
CO 5		✓	✓	

**References**

1. Park A. (2007), Park's Textbook of Preventive and Social Medicine XIX Edition M/S. Banarasidas, Bharat Publishers, 1167, Prem Nagar, Jabalpur, 428 001(India)
2. Bamji M.S, Prahlad Rao N, Reddy V (2004). Textbook of Human Nutrition II Edition, Oxford and PBH Publishing Co. Pvt. Ltd , New Delhi
3. Bhatt D.P (2008), Health Education, Khel Sahitya Kendra, New Delhi
4. Gibney MJ, Margetts BM, Kearney JM, Arab L (2004) Public Health Nutrition Blackwell Publishing Co. UK
5. Swaminathan M (2007), Essentials of Food and Nutrition. An Advanced Text book Vol.I, The Bangalore Printing and Publishing Co. Ltd, Bangalore
6. UNICEF. <https://www.unicef.org/>
7. WHO.<http://www.who.int/>
8. National Nutrition Mission – ICDS. [icds-wcd.nic.in](http://icds-wcd.nic.in)
9. Vir, S (2011). Public Health Nutrition in Developing Countries (Vol 1 & 2). New Delhi, India: Woodhead Publishing India.



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK6DSEHSC305</b>				
Course Title	<b>GUIDANCE AND COUNSELLING</b>				
Type of Course	<b>DSE</b>				
Semester	VI				
Academic Level	300-399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4 hours	-	Hours	4
Pre-requisites					
Course Summary	The course on Guidance and Counselling provides a comprehensive understanding of the principles, theories, and practices involved in assisting children in their development and growth. Course provides skills to identify trauma in children and practical skills to design appropriate school counselling programmes to support children's holistic development.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>INTRODUCTION TO GUIDANCE AND COUNSELLING</b>		<b>12</b>
	1	Definition and meaning of Guidance and Counselling, Goals of Counselling, Difference between Guidance and Counselling, Significance of Counselling.	
	2	The Counselling Process: Stages, Variables affecting the counselling process.	
	3	Qualities and skills of a Counsellor- communication skills, Counsellee features.	
	4	Types of Counselling: Crisis, Facilitative, Preventive, and Developmental.	



<b>II</b>	<b>GUIDANCE IN DIFFERENT SETTINGS</b>		<b>12</b>
	5	Health- Mental health problems, Hospital counselling, Addiction counselling	
	6	Family- family counselling, pre-marital and post-marital	
	7	Education- Educational, Vocational, Personal, Economic, Health	
	8	Other: Trauma, Addiction, Grief/ Trauma, Workplace	
<b>III</b>	<b>THEORIES/APPROACHES TO COUNSELLING AND THERAPY</b>		<b>12</b>
	9	Psychoanalytic Therapy: Freud's psychoanalysis; Client-Centered Therapy: Carl Roger's Nondirective therapy	
	10	Behaviour therapy: Systematic desensitization, Aversive Conditioning, Behaviour modification	
	11	Cognitive Behaviour therapy (CBT), Rational-Emotive Behaviour Therapy (REBT), Transactional Analysis	
	12	Special and Innovative approaches with children: Play therapy, Music therapy, Art therapy, Bibliotherapy, Horticultural therapy, Yoga, meditation etc.	
<b>IV</b>	<b>PSYCHOLOGICAL TESTING</b>		<b>12</b>
	13	Tests for Intelligence: Binet-Stanford Test, Wechsler Intelligence Scale for Children, Raven's Progressive Matrices, Tests for aptitude	
	14	Personality tests: 16 PF, Big Five personality inventory	
	15	Projective Tests: Children's Apperception test, Draw a Man test, Sentence Completion Test	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	16	Interview a psychologist/counsellor to get an awareness of the issues facing present-day children.	
	17	Visit any four Child Guidance Centre / Counselling centre/ remedial centre and make a report on its functioning.	
	18	Interview adolescents/ college students/ housewives/mothers using a standardized questionnaire and report	
	19	Organizing an educational programme related to preventive/facilitative/developmental counselling for the community and report	
	20	Use any one of the following for psychological testing and make a report: personality test/ Self Concept Inventory/ Self Esteem Inventory/ Emotional Maturity Scale/ Mental Health Scale/Decision-Making Scale	
	21	Class room discussion on the common problems for which counselling is sought and write a report.	

**COURSE OUTCOMES**

No.	Upon completion of the course, the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the meaning, principles and goals of counselling	U	PSO-1,2
CO-2	Examine the innovative approaches to counselling, focusing on the approaches in counselling	U, Ap	PSO- 5,6
CO-3	Compare and contrast the different theoretical approaches to counselling	Ap, An	PSO- 3,7
CO-4	Describe various tests on intelligence, personality, and aptitude for children	Ap	PSO- 2,4
CO-5	Design recommendations to various stakeholders involved in child and adolescent care on the need for guidance and counselling	E, C	PSO- 2,5,6,7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course:Guidance and Counselling Credits: 4:0:0  
(Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1.	Understand the meaning, principles and goals of counselling	PO- 1,2 PSO-1,2	U	F, C	L	
2.	Examine the innovative approaches to counselling, focusing on the approaches in counselling	PO- 3,4 PSO- 5,6	U, Ap	C, P	L	

3.	Compare and contrast the different theoretical approaches to counselling	PO- 1,4 PSO- 3,7	Ap, An	C, M	L	
4.	Describe various tests on intelligence, personality, and aptitude for children	PO- 6,7 PSO- 2,4	Ap	C, M	L	
5.	Design recommendations to various stakeholders involved in child and adolescent care on the need for guidance and counselling	PO-5, 8 PSO- 2,5,6,7	E, C	C, P	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
<b>CO 1</b>	2	3	-	-	-	-	-	3	2	-	-	-	-	-	-
<b>CO 2</b>	-	-	-	-	2	3	-	-	-	3	3	-	-	-	-
<b>CO 3</b>	-	-	3	-	-	-	2	2	-	2	-	-	-	-	-
<b>CO 4</b>	-	2	-	3	-	-	-	-	-	-	-	-	2	3	-
<b>CO 5</b>	-	2	-	-	2	2	3	-	-	-	-	3	-	-	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz / Seminar
- Group Discussion
- Midterm Exam
- Final Exam

**Mapping of COs to Assessment Rubrics:**

	Internal Exam	Assignment	Case analysis	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓			✓
CO 4	✓		✓	✓
CO 5		✓	✓	

**Reference Books:**

1. Dave, L. (1991). The Basic Essentials of Counselling, Sterling Publishers Pvt. ltd.
2. D.Koralek, D. Trister Dodge, and P. Pizzolongo (2004), Caring for Preschool Children (3<sup>rd</sup> edition).
3. DevadasR.PA text book of Child Development and Jaya N. Mac nillan India Ltd.Delhi.
4. Mearns & Thorne (2007). Person-Centered Counselling in Action (3<sup>rd</sup>ed), New Delhi : Sage publications.
5. Rao, N S, & Sahajpal, P .(2013) Counselling and Guidance, New Delhi: Tata McGraw Hill.
6. Rao, S.N. (1991). Counselling and Guidance,New Delhi: Tata McGraw Hill Publishers.

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7. Rogers, C.( 2003). Client-Centered Therapy: Its Current Practice, Implications and theory,London: Constable publishers.
8. Shankar, L.(1993). Guidance: Educational, Vocational, Personal and Social, Enkay Pub Ltd
9. Singh, R.(1994). Educational and Vocational Guidance, New Delhi: Common Wealth Publishing House.
10. Soundararajan, R. (2012). Counseling: Theory, Skills and Practice. New Delhi: Tata McGraw Hill.

**Web Resources:**

1. <https://psychcentral.com/lib/types-of-psychological-testing#what-is-it>
2. <https://www.britannica.com/science/psychological-testing>
3. <https://www.ncbi.nlm.nih.gov/books/NBK305233/>



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK6DSEHSC306</b>				
Course Title	<b>TRAINING AND DEVELOPMENT</b>				
Type of Course	<b>DSE</b>				
Semester	VI				
Academic Level	399 - 300				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4	-	-	4
Pre-requisites	1. 2.				
Course Summary	<p>The Training and Development course provides students with a comprehensive understanding of the principles, methodologies, and strategies essential for facilitating learning and skill development in diverse contexts. Covering topics such as the learning process, effective training methodologies, utilization of digital tools, program design, and ethical considerations, the course equips students with the knowledge and practical skills needed to design, implement, and evaluate training programs. Through hands-on activities, simulations, and real-world applications, students develop the ability to create impactful training interventions tailored to societal needs, promoting continuous learning and professional development in various fields. Overall, the course prepares students to become effective trainers and facilitators capable of driving positive change and fostering growth within organizations and communities.</p>				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>UNDERSTANDING THE LEARNING PROCESS</b>		<b>9</b>
	1	Learning theories: Behaviorism, Cognitivism, Constructivism	
	2	Role of learners and instructors	
	3	Implications of learning theories for training and capacity-building programs	
	4	Stages of the Learning Process Factors that influence learning,	
	5	Concept of Andragogy & its principles	
<b>II</b>	<b>EFFECTIVE TRAINING METHODOLOGIES AND STRATEGIES</b>		<b>9</b>
	6	Training methodologies- Experiential learning, simulations, role-plays, and on-the-job training, participatory training Classification of training methods - Formal Methods & Informal Methods	
	7	Principles of Effective Training Design	
	8	Formulation of Learning Objectives for training program Specific, measurable, achievable, relevant, and time-bound (SMART)	
<b>III</b>	<b>UTILIZING DIGITAL TOOLS FOR TRAINING EFFECTIVENESS</b>		<b>9</b>
	9	E-learning platforms - Learning Management Systems (LMS) and Massive Open Online Courses (MOOCs), Features and functionalities of e-learning platforms- content delivery, assessment, collaboration, and tracking	
	10	Introduction to multimedia resources- videos, podcasts, infographics, and interactive presentation.	
<b>IV</b>	<b>DESIGN AND IMPLEMENTATION OF TRAINING PROGRAMS</b>		<b>9</b>
	11	Principles of Program Design, Program Planning Cycle and its steps	
	12	Curriculum development processes	
	13	Implementation Strategies- Scheduling, resource allocation, participant recruitment, and facilitator training Significance of comprehensive training documents- Standard Operating Procedure (SOP) manuals and training modules	
	14	Monitoring and Evaluation (M&E)- frameworks and methodologies	
	15	Agencies involved in training and development Role of training and capacity building in HRD	

<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>9</b>
	16	Design a training program using program planning cycle	
	17	E-Learning Platform Exploration	
	18	Develop a Training Modules/SOP manuals as per the training curriculum addressing a specific societal need (e.g., nutrition education, sustainable technology for household).	

### **COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand concepts of the learning process, including how learners acquire knowledge, skills, and attitudes through training interventions.	U, R	PSO-2
CO-2	Apply effective training methodologies and strategies to facilitate skill acquisition and explore techniques such as experiential learning, simulations, role-plays, and on-the-job training, tailoring these approaches to address specific learning objectives and organizational needs within the domains of Home Science.	R, U, Ap	PSO-3
CO-3	Utilizing digital tools for training effectiveness and recognizing the importance of digital literacy in modern training practices such as e-learning platforms, multimedia resources, and social media for real-time problem-solving, collaboration, and engagement in training processes, aligning with the evolving digital landscape of Home Science education.	U, An, Ap	PSO-4
CO-4	Design and implement training programs for societal needs and contribute to the advancement of Home Science disciplines.	Ap, An, C	PSO-5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**



Name of the Course: Training & Development

Credits: 3:0:0 (Lecture:3 Tutorial:0 Practical:0)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	CO- 1	PSO 2	U	F, C	L	-
2	CO-2	PSO 3	R.U.Ap,E	P,M	L	-
3	CO-3	PSO 4	U,E,C	F,C	L	-
4	CO-4	PSO 5	C	C.M	T	-

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PO1	PO2	PO3	PO4	PO5	PO6
CO 1	1	-	-	-	-	-	2	2	2	2	2	2
CO 2	2	3	-	-	-	-	2	2	2	2	2	2
CO 3	-	-	1	-	-	-	2	2	2	2	2	2
CO 4	-	-	2	3	-	-	2	2	2	2	2	2

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓	✓	✓

**References:**

1. Rao, T. V., & Rao, R. (2007). Training and development: Concepts and practices. New Delhi, India: Excel Books.
2. Khan, M. M. (2010). Training for development. New Delhi, India: Oxford University Press.
3. Dwivedi, R. S. (2015). Human resource development: Indian perspective. New Delhi, India: Excel Books.
4. Khosla, R. (2018). Learning and development: A comprehensive guide. Thousand Oaks, CA: Sage Publications.
5. Pareek, U. (2012). Training and development in Indian industry: A case study approach. New Delhi, India: PHI Learning Pvt. Ltd.
6. Pattanayak, J. K. (2009). Training methods and techniques. New Delhi, India: Sterling Publishers Pvt. Ltd.
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8. National Skills Development Corporation. (n.d.). Skill India Mission. Retrieved from <https://www.nsdindia.org/>
9. Ministry of Labour and Employment. (n.d.). Pradhan Mantri Kaushal Vikas Yojana (PMKVY). Retrieved from <https://labour.gov.in/>
10. Directorate General of Training. (n.d.). Apprenticeship Training Scheme. Retrieved from <https://apprenticeshipindia.org/>



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK6SECHSC300</b>				
Course Title	<b>PATISSERIE AND CONFECTIONERY</b>				
Type of Course	<b>SEC</b>				
Semester	VI				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites	1. 2.				
Course Summary	A culinary education programme that specializes in the art and methods of pastry preparation is called a patisserie course. Such a course syllabus usually covers a wide range of subjects linked to pastry making, cake baking, chocolate work, and dessert presentation. In a patisserie course, students acquire the skills necessary to operate in the pastry, bakery and dessert industry as well as the ability to master a variety of methods and foster their creativity.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>INTRODUCTION</b>		<b>9</b>
	1	Definition and importance of Patisserie .	
	2	Introduction to equipment and tools used in bakery and confectionery.	
	3	Role of ingredients used in Patisserie and bakery	
	4	Types of ovens and baking temperatures for bread and confectionery foods.	

<b>II</b>	<b>BREAD MAKING</b>		<b>9</b>
	5	Different methods of preparing bread-straight dough method, sponge dough method	
	6	Role of ingredients used in bread making	
	7	Characteristics of good bread □ External characteristics-Volume, symmetry of shape □ Internal characteristics - colour, texture, aroma, and elasticity	
	8	Faults in bread making, bread improver	
<b>III</b>	<b>BASIC PASTRIES AND CAKES</b>		<b>9</b>
	09	Basic pastry and derivatives- short crust pastry, jam tart, Apple pie, Banana flan.	
	10	Chocolate work-Fundamentals of the science of chocolate.	
	11	Methods of cake making-sugar butter process, flour butter process, blending and rubbing method.	
<b>IV</b>	<b>RECENT ADVANCES IN PATISSERIE</b>		<b>9</b>
	12	Importance of AI in bakery and confectionary industry 3D printing in Patisserie	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>9</b>
	13	Product Development-Demonstration and Preparation of simple and fortified breads	
	14	Demonstration and Preparation of simple and fortified cakes, pastries and biscuits	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Explain the different ingredients used in confectionery and bakery, Describe the equipment and tools used in baking process	R	PSO-2
CO-2	Identify and select ingredients for use in a variety of baked product List down the steps in preparing breads.	R, U	PSO-2
CO-3	Classify different pastries and derivatives Use the basic baking science principles, ratio and techniques used in preparing pastries and cakes.	U,Ap	PSO-2
CO-4	Illustrate standards of professionalism to the baking industry.	C,An	PSO-4
CO-5	Write innovative recipes of different breads, pastries and biscuits. Develop a variety of baked products using latest technology.	C	PSO-5,6

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create,**

*Note: 1 or 2 COs/module*

**Name of the Course: PÂTISSERIE AND CONFECTIONERY Credits: 3:0:0**

**Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
1	Explain the different ingredients used in confectionery and bakery, Describe the equipment and tools used in baking process	PSO-2	R	F	T	

2	Identify and select ingredients for use in a variety of baked product List down the steps in preparing breads.	PSO-2	R,U	F	T	
3	Classify different pastries and derivatives Use the basic baking science principles, ratio and techniques used in preparing pastries and cake	PSO-2	U,Ap	P	T	
4	Illustrate standards of professionalism to the baking industry.	PSO-4	C,An	P	T	
5	Write innovative recipes of different breads, pastries and biscuits. Develop a variety of baked products using latest technology.	PSO-5,6	C	P,C		P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PSO 2	PS O3	PSO 4	PS O5	PSO 6	PO 1	PO2	PO3	PO4	PO5	PO 6,7
CO 1		1	-	-	-	1	1					1
CO 2		2		-	-	-	1	1	2			
CO 3	-	2		-	-				2			2
CO 4	-	-		3	-				1			2,3
CO 5				-	3	2	2		3			3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4		✓		✓
CO 5			✓	✓

**REFERENCES**

1. Khatkar B. S. (2011) *Baking Science and Technology*, Arihant Publication.
2. Amendola J. & Rees N. (2003) *Understanding Baking: The Art and Science of Baking*, Wiley.
3. Dubey S. C. (2002) *Basic Baking*, The Society of Indian Bakers.
4. Manley D. (2000) *Technology of Biscuits, Crackers & Cookies*. 2nd Edition, CRC Press.
5. NPCS Board of Food Technologists (2014) *Confectionery Products Handbook (Chocolate, Toffees, Chewing Gum & Sugar Free Confectionery)*, Asia Pacific Business Press Inc.
6. Edwards W.P. (2007) *The Science of bakery products*, RSC Publications.
7. Mohos F. (2010) *Confectionery & chocolate engineering, principles & applications*, Wiley Blackwell Publishing Ltd.





University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK6SECHSC301				
Course Title	INDOOR GARDENING				
Type of Course	SEC				
Semester	VI				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites	1. 2.				
Course Summary	Indoor gardening brings an intimate and natural association between man and plants and enlivens the indoor environment. Indoor plants act as natural air purifiers by absorbing toxins and releasing oxygen into the air, creating a healthier breathing environment. Indoor gardening relieve stress,boosts creativity and increases productivity.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>INTRODUCTION TO INDOOR GARDEN</b>		<b>15</b>
	1	Definition of indoor garden	
	2	Significance of interiorscaping	
	3	Benefits of indoor plants approved by NASA	
<b>II</b>	<b>INDOOR GARDENING ESSENTIALS</b>		<b>15</b>
	4	Considerations-Location,Light,water,media,air circulation	
	5	Selection of plants for indoor garden	
	6	Tools used in indoor garden	

<b>III</b>	<b>TECHNIQUES AND TYPES OF INDOOR GARDEN</b>		<b>15</b>
	7	<b>Techniques of Indoor Garden</b> - Soil based, hydroponics, aeroponics,	
	8	<b>Types of Indoor Garden</b>	
		Container garden, Bonsai	
		Corner raised beds	
		Living wall	
		Microgreens corner	
		Terrarium	
		Kokedama	
<b>IV</b>	<b>CARE AND MAINTENANCE OF INDOOR PLANTS</b>		<b>15</b>
	9	Pruning	
	10	Pest control	
	11	Mindful Watering	
	12	Application of fertiliser	
	13	Potting and Repotting	
	14	Humidity requirement	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>15</b>
	15	Preparation of any one type of indoor garden--terrarium, microgreens corner or kokedama	
	16	Set an album by taking photographs of indoor garden in a residential space and an institutional space.	
	17	Prepare a portfolio of plants used in indoor garden.	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the different types of indoor garden.	U	PSO-1, 5
CO-2	Understand the significance of indoor plants	U	PSO-1, 5
CO3	Apply the techniques for preparing an indoor garden	U, Ap	PSO-2, 5,
C0-4	Create an indoor garden	U, Ap,C	PSO-2, 5, 7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
1	Understand the different types of indoor garden.	PO-1, PSO1-, 5	U	F, C	L	-
2	Understand the significance of indoor plants	PO-1, 6 PSO-1,5	U	F,C	L	-
3	Apply the techniques for preparing an indoor garden	PO-1,2,6 PSO-2, 5	Ap	P	L,T	-
4	Create an indoor garden	PO-3 PSO-1, 2, 6	C	P	L,T	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	P O6	P O7	P O8
CO 1	3	3	2	-	-	1	-	3	2	2	-	-	3	-	-
CO 2	3	3	2	-	-	1	-	3	3	3	-	-	3	-	-
CO 3	3	3	3	-	-	1	-	3	3	3	-	-	3	-	-
CO 4	3	3	3	-	-	1	-	3	3	3	-	-	3	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓		✓	✓
CO 4			✓	✓

**References:**

1. Sophie Lee(2017).Living with plants :A guide to indoor gardening: Hardie Grant Books (UK).
2. John Brookes.(1994).The Indoor Garden Book:DK Publishers.
3. Veronica Peerless.(2017).How Not to Kill Your House Plants:.DK Publishers.
4. Sarah Callaway.(2015).Indoor Gardening for Beginners.
5. <https://www.architecturaldigest.com>
6. <https://www.nparks.gov.sg > community-in-bloom>

# **SEMESTER 7**



University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK7DSCHSC400				
Course Title	<b>RESEARCH METHODOLOGY AND STATISTICS</b>				
Type of Course	<b>DSC</b>				
Semester	VII				
Academic Level	400 - 499				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites					
Course Summary	This course provides an in-depth exploration of research methodology and statistical analysis. Students will learn the fundamental principles of designing research studies, collecting and analysing data, and interpreting using appropriate statistical tests. The course aims to equip students with the necessary skills to conduct empirical research and make informed decisions based on data analysis.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>RESEARCH METHODOLOGY, RESEARCH PROBLEM</b>		<b>12</b>
		Research Methods- meaning, objectives, significance, characteristics,	
		Types of research, Formulating Research questions/problems	
		Review of Literature Use of bibliographic databases, free reference management software- Mendeley, Zotero	
		Research design and sampling techniques, sample, population,	
		Sampling techniques- Probability and non-probability	
		Hypothesis and variables	

<b>II</b>	<b>TOOLS/ METHODS IN DATA COLLECTION</b>		<b>12</b>
		Surveys, Questionnaire and schedule	
		Interview, case study, scaling methods, reliability and validity in research	
		Descriptive studies, Observational studies, experimental studies	
		Reliability and validity in research, data coding and editing	
<b>III</b>	<b>ORGANISATION AND REPRESENTATION OF DATA, ACADEMIC WRITING AND ETHICS IN RESEARCH</b>		<b>12</b>
		Visualisation of data with graphs and charts	
		Presentation of data- Oral/Poster	
		Scientific writing-research articles, review articles, monographs, dissertations, reports, research proposals, Plagiarism tools	
		Information sheet, Informed consent	
		Ethics in research studies and Academic writing	
<b>IV</b>	<b>STATISTICAL TESTS</b>		<b>12</b>
		Data Management, Measures of central tendency and dispersion, quartiles and percentiles, Normal Distribution and its applications	
		Correlation, Regression and Association of Attributes	
		Testing of Hypotheses- test of a statistical hypothesis, critical region, Type I error, Type II error, significance level, power of the test	
		Parametric and non parametric tests	
		Testing of hypothesis, testing the equality of means of two populations, testing the hypothesis that proportion has a specified value, testing the equality of proportions of two populations, chi-square test, F test, ANOVA concepts, ANOVA- single factor Non-parametric chi-square test- testing goodness of fit, independence of attributes, homogeneity of proportions.	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	17	Identify a research problem, create a research proposal, analyse the research data and present the findings	
	18	Use of software in data entry, analysing and interpreting	
	19	Use of AI tools in Research	



**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Identify relevant research problems and apply appropriate methodologies	Ap	PSO3
CO-2	Apply the ethics in Home science research	Ap	PSO3
CO-3	Create a research design and to formulate research reports	An, C	PSO3, PSO4
CO-4	Evaluate the research findings	E	PSO3

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Identify relevant research problems and apply appropriate methodologies	PO1 PO2 PSO3	Ap	F, C	L	-
2	Apply the ethics in Home science research	PO1 PSO3	Ap	P	L	-
3	Create a research design and to formulate research reports	PO3 PSO3 PSO4	C	M	L	-
4	Evaluate and report the research findings	PO7 PSO3	E	M	L	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	-	-	3	-	-	-	3	3						
CO 2			3	-	-	-	3	-						
CO 3	-	-	3	3	-	-	3		3					
CO 4	-	-	3		-	-							3	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics:**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1				✓
CO 2				✓
CO 3				✓
CO 4		✓		

**References:**

1. Kothari, C. R. Research Methodology – methods and techniques, 3rd edition, New age International Publishers, New Delhi, 2014
2. Kulbir Singh, Sidhu. Methodology of Research in Education, Sterling Publishers Pvt.Ltd. New Delhi,
3. Sharma, B.A. V, Prasad, R.D. and Satyanarayana, P. Research methods in Social Science, Sterling Publishers Pvt. Ltd.,
4. Wilkinson, T.S and Bhandarkar, P.L. Methodology and Techniques of Social Research, Himalaya Publishing House, Bombay
5. Gupta, S. P. (2021). Statistical Methods, Sultan Chand & Sons. New Delhi.



## University of Kerala

Discipline	HOMESCIENCE				
Course Code	UK7DSCHSC401				
Course Title	<b>HUMAN PHYSIOLOGY AND NUTRITIONAL BIOCHEMISTRY</b>				
Type of Course	<b>DSC</b>				
Semester	7				
Academic Level	400 - 499				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites					
Course Summary	Human physiology and Nutritional biochemistry are two interrelated fields that explore the fundamental aspects of how nutrients interact with the human body to maintain health and promote optimal functioning. This course provides a comprehensive overview of the biochemical processes involved in nutrient metabolism, their impact on physiological functions, and their role in human health and disease.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>INTRODUCTION AND REVIEW</b>		9
	1	Introduction to Nutritional Biochemistry	
	2	Review of digestion and absorption of carbohydrates, proteins and lipids	
	3	Immunology and Xenobiotics - Natural immune system, cell mediated humoral immunity, immunoglobulins and antibodies. Mode of action of antioxidants, role of free radicals in the pathophysiology of diseases	

<b>II</b>	<b>MACRONUTRIENT METABOLISM</b>		18
	5	Carbohydrates- Chemistry, classification, properties	
	6	Carbohydrate metabolism(Steps, energetics, regulation)- Glycolysis, TCA cycle, Gluconeogenesis, Glycogenesis, Glycogenolysis, Cori's cycle, HMP pathway. Electron Transport Chain, Biosynthesis of Vitamin C	
	7	Lipids- Chemistry and classification, fatty acids, phospholipids, steroids, eicosanoids	
	8	Lipid metabolism- Lipogenesis, $\beta$ oxidation of fattyacids(palmitic acid), biosynthesis of cholesterol	
	9	Protein – Chemistry, classification, properties	
	10	Metabolism- transamination, deamination, decarboxylation Amino acid metabolism- essential and non essential Urea cycle	
<b>III</b>	Blood and Major Organ Systems		18
	11	Composition and functions of blood	
	12	Circulatory system- Structure of heart, physiology and properties of cardiac muscle, cardiac cycle, heart sounds, ECG	
	13	Digestive System- Structure, functions, secretions, movements of gastrointestinal tract Liver – functions, secretion,	
	14	Respiratory System- Mechanism of respiration, exchange and transport of gases, respiratory volume	
	15	Excretory System – Physiology of kidney, urine formation, micturition, artificial kidney	
	16	Endocrine System – hormones of pituitary, thyroid, parathyroid, adrenal, sex hormones, pancreas- functions and deficiencies	
<b>IV</b>	<b>BIOPHYSICAL TECHNIQUES</b>		15
	23	Separation of sugars and amino-acids by chromatography, Electrophoretic separation of protein	
	24	Colorimetry, spectrophotometry & radioimmunoassay (Principle & Procedure) Atomic absorption spectroscopy and flame photometry (Principle & Procedure), PCR (Principle & Procedure)	
	25	Radio isotopes in clinical diagnosis Biomarker enzymes: Heart, liver and kidney	

V	<b>PRACTICALS</b>		15
	26	Qualitative analysis of carbohydrates- glucose, fructose, sucrose Qualitative analysis of protein	
	27	Qualitative analysis of lactose in milk, vitamin c in chillies, calcium in ash solution	
	28	Analysis of blood for - a) Glucose b) Haemoglobin c) Cholesterol d) Serum A/ G ratio and total protein	
	29	Analysis of urine for a) Creatinine b) Urea c) VitaminC d) Glucose	

### **COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the fundamental principles of nutritional biochemistry, including the classification and functions of macronutrients (carbohydrates, proteins, fats)	U	PSO-1,2
CO-2	Demonstrate a comprehensive understanding of the structure and function of major organ systems in the human body, including the cardiovascular, respiratory, digestive, endocrine, and immune systems.	R,U	PSO 1, 2
CO-3	Demonstrate knowledge of the major pathways for metabolism of nutrients and key mechanisms regulating these pathways	R,U	PSO 5
CO-4	Apply the knowledge of common metabolic pathways in finding metabolic alterations	U, Ap	PSO 3,5
CO-5	Demonstrate proficiency in conducting laboratory experiments, analysis, and interpretation of biochemical data	Ap, An	PSO 4,5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Human Physiology and Nutritional Biochemistry Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO 1	Understand the fundamental principles of nutritional biochemistry, including the classification and functions of macro nutrients (carbohydrates, proteins, fats)	PSO 1,2	R,U	F, C	L,T	
CO 2	Demonstrate a comprehensive understanding of the structure and function of major organ systems in the human body, including the cardiovascular, respiratory, digestive, endocrine, and immune systems.	PSO 1,2	R,U	F	L,T	
CO 3	Demonstrate knowledge of the major pathways for metabolism of nutrients and key mechanisms regulating these pathways	PSO 5	U, R	F	L,T	
CO 4	Apply the knowledge of common metabolic pathways in finding metabolic alterations	PSO 3,5	U, Ap	F, M	L, T	P
CO 5	Demonstrate proficiency in conducting laboratory experiments, analysis, and interpretation of biochemical data	PSO 4,5	AP.An	P		P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	P O8
<b>CO 1</b>	1	2	-	-	-	-	1							2
<b>CO 2</b>	2	3	-	-	-	-	1	3						
<b>CO 3</b>	-	-	-	-	3	-	1							3
<b>CO 4</b>	-	-	2	3	3	-	1	2	2					
<b>CO 5</b>	-	1	-	2	3	-				3	3	3	3	

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam



**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓	✓	✓
CO 4				✓
CO 5				✓

**References**

1. Chatterjea, M. N and Shinde, R. Textbook of Medical Biochemistry, 2012, 8 th edition. JayPee Brothers. Medical Publishing Pvt Ltd. New Delhi.
2. Lehninger, A.L, Nelson, D.L and Cox,M.M. Principles of Biochemistry.2017, 7<sup>th</sup> edition.CBS Publishers,Jain Bhavan, BhalaNatu Nagar.
3. Harold Varley, Practical Clinical Biochemistry. 6th edition, 2010, CBS Publishers& Distributors, New Delhi.
4. Murray, Bender, Botham, Kennelly, Rodwell, and Well . Harper's Illustrated Biochemistry. 2018, 31<sup>st</sup> Edition) McGraw Hill Publishers, ISBN-13:978-0-07-176576-3) <http://accessmedicine.mhmedical.com/book.aspx?bookid=389>)
5. Satyanarayana U and Chakrapani U, Biochemistry .2020. 5<sup>th</sup> revised edition, Books & Allied (P) Ltd
6. Vasudevan DM and Sreekumari S. Textbook of Biochemistry (for Medical students). 2013, 7th edition, Jaypee Brothers Medical Publishers (P) Ltd., New Delhi.
7. Gropper SS, Smith, JL, and Groff JL . Advanced Nutrition and Human Metabolism,2018. 7 th Edition, Wadsworth Publishing Co Inc;



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK7DSEHSC400</b>				
Course Title	<b>ARTIFICIAL INTELLIGENCE (AI) IN NUTRITIONAL HEALTH</b>				
Type of Course	<b>DSE</b>				
Semester	VII				
Academic Level	400-499				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites					
Course Summary	<p>This course helps to understand the intersection of AI and nutrition and fosters collaboration between professionals in diverse fields, such as computer science, nutrition, and healthcare, promoting interdisciplinary approaches to addressing complex health challenges. As AI continues to play an increasingly prominent role in healthcare and nutrition, students equipped with knowledge in this area are better prepared to adapt to and capitalize on future trends, ensuring their relevance and success in the field.</p>				

**Detailed syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>IMPORTANCE OF NUTRITIONAL HEALTH</b>		<b>15</b>
	1	Role of nutrition in human health-optimal growth & development, disease prevention	
	2	Impact of nutrition in physical & mental health- Importance of macronutrients (Carb, protein & fats) for physical activity & metabolic process, impact of specific nutrients (omega 3 FA, B vitamins) that support brain health & emotional wellbeing	
	3	Strategies for healthy eating-Balanced plate, Mindful eating habit	
	4	Role of stakeholders and community organizations in promoting nutritional health at the population level	
<b>II</b>	<b>APPLICATION OF ARTIFICIAL INTELLIGENCE IN NUTRITION &amp; HEALTH</b>		<b>15</b>
	5	Introduction to AI in nutrition & health	
	6	Application of AI in nutrition- analyzing dietary intake, biomarkers, creating personalized meal plans, offering food analysis and labeling	
	7	Application of AI in healthcare: Clinical decision, Remote monitoring and telehealth, Healthcare operations and administration, Healthcare robotics	
<b>III</b>	<b>POPULAR DIET APPS/ FREE AI TOOLS IN NUTRITIONAL ASSESSMENT</b>		<b>15</b>
	8	Popular Diet Apps/ free AI Tools in nutritional assessment- Open Food Facts, Cronometer, MyfitnessPal, Lifesum	
	9	Concepts of personalized nutrition and its significance in healthcare	
	10	Role of AI in developing personalized nutrition plans based on individual characteristics and preferences	
<b>IV</b>	<b>FUTURE DIRECTIONS &amp; CHALLENGES</b>		
	11	Emerging trends in AI and nutrition research	
	12	Challenges and opportunities in integrating AI tools into routine nutritional assessment and counselling practices	
<b>V</b>	<b>RELATED EXPERIENCE</b>		
	13	Quiz	
	14	Practical assignment using any diet apps/free AI tools to assess their nutritional status	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understanding the significance of nutritional health	R,U	PSO-1
CO-2	Analyze and understand the Applications of Artificial Intelligence (AI) in Nutrition	An, R,U	PSO-2
CO-3	Apply & understand Popular Diet Apps and Free AI Tools for Nutritional Assessment	Ap, R,U	PSO-2,4
CO-4	Apply knowledge in practical assignment	Ap,U	PSO-4

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Understanding the significance of nutritional health	PO6/PSO-1	R,U	F, C	L	
2	Analyze and understand the Applications of Artificial Intelligence (AI) in Nutrition	PO1,2,6/ PSO-2	An, R,U	C,P	L	
3	Apply & understand Popular Diet Apps and Free AI Tools for Nutritional Assessment	PO1,2,36 /PSO-2,4	Ap, R,U	C,M	L	
4	Apply knowledge in practical assignment	PO1,2,36 /PSO-4	Ap,U	P,M	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PO1	PO2	PO3	PO4	PO5	PO6
CO 1	3	-	-	-	-	-	-	-	-	-	-	3
CO 2	-	3	-	-	-	-	3	3	-	-	-	3
CO 3	-	-	-	-	-	-	3	3	3	-	-	3
CO 4	-	-	-	3	3	-	3	3	3	-	-	3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Mapping of COs to Assessment Rubrics:**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4		✓		✓

**Reference Books**

1. Bohr, A., García Moros, J., & Ahuja, A. (2020). Artificial Intelligence in Healthcare. Academic Press Publisher.
2. Nolan, K. J., & Heslin, J.-A. (2011). Nutrition Data: Facts and Figures for Foods and Recipes. Pocket Books Publisher.
3. Warshaw, H. S., & Kulkarni, K. (2005). The Complete Guide to Carb Counting. American Diabetes Association Publisher
4. Topol, E. (2011). Deep Medicine: How Artificial Intelligence Can Make Healthcare Human Again. Book House Publisher.

**WEB RESOURCES:**

<https://aiinhealthcare.com/>

<https://healthcareai.news/>

<https://www.healthcareitnews.com/>



University of Kerala

Discipline	HOME SCIENCE				
Course Code	UK7DSEHSC401				
Course Title	LANDSCAPE GARDENING				
Type of Course	DSE				
Semester	VII				
Academic Level	400 – 499				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites					
Course Summary	<p>The three important values that can be learnt from taking care of plants are patience, planning and ownership. Each of these forms the cornerstones of a strong and successful personality. Landscape gardening is a stress buster that can help to lower stress. It can help to recuperate and bounce back after a stressful event. The Landscape gardening course introduces students to the elements and principles to be followed while setting a garden. It also gives insights into the various components of landscape gardening as well as the types of garden. The course inculcates knowledge on the care of gardens which is an indispensable component for maintaining a healthy garden.</p>				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>INTRODUCTION TO LANDSCAPE GARDENING</b>		<b>12</b>
	1	Landscape gardening - definition and concept.	
	2	Importance of landscape gardening	
	3	Elements of landscape gardening	
	4	Principles of landscape gardening	

<b>II</b>	<b>COMPONENTS OF LANDSCAPE GARDENING</b>		<b>12</b>
	5	Hardscaping– definition Elements of hardscaping - walkways, driveways, patios, decks, pergolas, swimming pools, fountains, stone benches, sheds, gazebos, pergolas, arbors , trellises and gates.	
	6	Softscaping – definition. Components of softscaping - soil, trees, hedges, ground covers, flower beds, vines and shrubs and topiary	
<b>III</b>	<b>TYPES OF GARDEN</b>		<b>12</b>
	7	Water garden	
	8	Rock garden	
	9	Water garden	
	10	Butterfly garden	
	11	Vertical garden	
	12	Woodland garden	
<b>IV</b>	<b>CARE OF THE GARDEN</b>		<b>12</b>
	14	Irrigation	
	15	Application of fertiliser	
	16	Removal of weeds	
	17	Mulching	
	18	Staking	
	19	Pruning	
	20	Protection from pests and diseases	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	23	Collection of pictures/photographs of different types of garden	
	24	Visit to a residence to observe the landscaping and evaluate it on the basis of the principles of design.	
	25	Preparation of a small/medium/large garden layout using CAD	



**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand and apply the elements and principles of landscaping while designing a garden.	U,Ap	PSO-1,2,3,5,6
CO-2	Understand the components and care of the garden.	U	PSO-1,2,3,5,6
CO-3	Analyse the principles used in a landscaped area.	U, An	PSO-1,2,3,5,6
CO-4	Create different types of garden	U, An,C	PSO-1,2,3,5,6

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Understand and apply the elements and principles of landscaping while designing a garden.	PO-1,2,3,6 PSO-1,2,3,5,6	U,Ap	F, C,P,M	L	-
2	Understand the components and care of garden.	PO-1,2,3,6 PSO-1,2,3,5,6	U	F, C,P,M	L,T	-
3	Analyse the principles used in a landscaped area.	PO-1,2,3,5,6, PSO-1,2,3,5,6	U,An	F, C,P,M	L,T	-
4	Create different types of garden	PO-1,2,3,6 PSO-1,2,3,5,6	U,An,C	F, C,P,M	L,T	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	P O6	PO 7	PO 8
CO 1	3	3	2	-	3	1	-	3	2	2	-	-	3	-	-
CO 2	3	3	2	-	3	1	-	3	2	3	-	-	3	-	-
CO 3	3	3	2	-	3	1	-	3	2	3	-	-	3	-	-
CO 4	3	3	2	-	3	1	-	3	3	3	-	-	3	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4			✓	✓

**References:**

1. Richard . N. Arteca .( 2015), Introduction to Horticultural Science, Cengage learning.
2. Nina Greene.(2014) Garden Styles: Introduction to 25 Garden Styles, Speedy publishing LLC.
3. V.L. Sheela(2011), Horticulture, MJP Publishers,Chennai.
4. Deena Beverley( 2004) Practical Gardening, Paragonbook,UK
5. K.Manibhushan Rao, 2005, Textbook of Horticulture, Mac Millan India Ltd, NewDelhi.



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK7DSEHSC402</b>				
Course Title	<b>SPORTS AND FITNESS NUTRITION</b>				
Type of Course	<b>DSE</b>				
Semester	VII				
Academic Level	400-499				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites					
Course Summary	The course covers essential aspects of sports nutrition and health/fitness nutrition. The course provides a comprehensive understanding of the role of various nutrients in optimising athletic performance and maintaining overall health. Special mention is given to nutritional needs of diverse populations and athletes participating in various sports. The course equips learners with valuable insights and evidence-based strategies for achieving optimal nutrition and performance outcomes				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>INTRODUCTION TO SPORTS NUTRITION AND PERFORMANCE</b>		<b>12</b>
	1	Overview of important macronutrients (carbohydrates, proteins, fats) and micronutrients (vitamins, minerals) in sports nutrition.	
	2	Energy metabolism during exercise.	
	3	Caloric requirements for different sports and training intensities.	
	4	Overview of the role of carbohydrates, proteins, and fats in energy metabolism and performance	
	5	Micronutrient requirements and their impact on performance and health	
	6	Dietary supplements and ergogenic aids : efficacy, safety, and ethical considerations	
	7	Nutrient timing and composition for pre-, during, and post-exercise nutrition	
	8	Special considerations for endurance athletes, strength athletes, and team sport athletes.	
	9	Historical perspective and evolution of sports nutrition	
10	Career opportunities in sports nutrition and fitness		
<b>II</b>	<b>DIETARY STRATEGIES FOR PERFORMANCE ENHANCEMENT</b>		<b>12</b>
	11	Carbohydrate loading and glycogen replenishment	
	12	Protein requirements for muscle repair and growth.	
	13	Role of fats in energy metabolism and health.	
	14	Periodization of nutrition plans.	
	15	Importance of hydration in performance and health	
	16	Fluid balance and electrolyte regulation during exercise	
	17	Strategies for optimizing hydration before, during, and after exercise	
18	Hydration and fluid balance considerations for different athletes and fitness enthusiasts		

<b>III</b>	<b>NUTRITION FOR HEALTH AND FITNESS</b>		<b>12</b>
	19	Principles of weight management and body composition.	
	20	Nutritional considerations for general fitness and health promotion.	
	21	Dietary guidelines for promoting overall well-being.	
	22	Energy balance and body composition considerations for athletes and fitness enthusiasts	
	23	Tailoring nutrition plans for different sports, activities, and training phases	
	24	Special considerations for athletes with dietary restrictions or medical conditions	
	25	Integrating nutrition with exercise prescription for optimal performance and health outcomes	
<b>IV</b>	<b>EVALUATING SCIENTIFIC LITERATURE IN SPORTS NUTRITION</b>		<b>12</b>
	26	Critical appraisal of research studies in sports nutrition.	
	27	Understanding research methodologies and study designs.	
	28	Application of evidence-based recommendations in practice.	
	29	Ethical considerations and controversies in sports nutrition research.	
	30	Developing individualized nutrition plans for athletes and fitness clients	
	31	Strategies for behavior change and adherence to nutrition and fitness goals	
	32	Counseling techniques and communication skills for effective coaching	
	33	Monitoring and evaluating nutrition and performance outcomes	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	34	Plan balanced meals and snacks tailored to different types of athletes and fitness enthusiasts, considering their specific nutritional needs and training goals	
	35	Visit to local sports teams' training facilities / gyms to observe the sports nutrition principles in practice	
	36	Conduct nutritional assessments on athletes or fitness enthusiasts, including dietary intake analysis, body composition measurements, and physical activity assessments	
	37	Visit a sports nutrition store/ facility and analyze various sports drinks, energy bars, and supplements available in the market.	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the role of nutrition in optimizing sports performance and fitness.	U	PSO-2
CO-2	Apply knowledge of macronutrients, micronutrients, and hydration in designing nutrition plans for athletes or individuals pursuing fitness goals.	Ap,U, R	PSO-2
CO-3	Apply principles of sports nutrition and performance to enhance athletic performance.	Ap,U, R	PSO-1,2
CO-4	Analyze dietary strategies for weight management and body composition goals in athletes and fitness enthusiasts.	An, R, U	PSO-5
CO-5	Analyze the impact of different dietary strategies on athletic performance, body composition, and overall health	An, R, U	PSO-3, 5
CO-6	Critically evaluate scientific literature and evidence-based recommendations in sports nutrition and fitness	E	PSO-3, 5
CO-7	Evaluate the nutritional needs of athletes and individuals engaged in physical activity.	E	PSO-5
CO-8	Develop evidence-based recommendations for athletes, fitness enthusiasts, or individuals seeking to improve their health through nutrition.	C	PSO-2, 5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
1	Understand the role of nutrition in optimizing sports performance and fitness.	PO-1 PSO-2	U	F, C	L	-
2	Apply knowledge of macronutrients, micronutrients, and hydration in designing nutrition plans for athletes or individuals pursuing fitness goals.	PO-2 PSO-2	Ap,U, R	F, C, P	L	-
3	Apply principles of sports nutrition and performance to enhance athletic performance.	PO-1 PSO-1,2	Ap,U, R	C	L	-
4	Analyze dietary strategies for weight management and body composition goals in athletes and fitness enthusiasts.	PO-1 PSO-5	An, R, U	C, P	L	-



5	Analyze the impact of different dietary strategies on athletic performance, body composition, and overall health	PO-2 PSO-3, 5	An, R, U	C, P	L	-
6	Critically evaluate scientific literature and evidence-based recommendations in sports nutrition and fitness	PO-1 PSO-3	E	C, P	L	-
7	Evaluate the nutritional needs of athletes and individuals engaged in physical activity.	PO-2 PSO-5	E	C, P	L	-
8	Develop evidence-based recommendations for athletes, fitness enthusiasts, or individuals seeking to improve their health through nutrition.	PO-3 PSO-2, 5	C	C, P	L	-

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PO1	PO2	PO3	PO4	PO5	PO6
CO 1		2					1					
CO 2		2						3				
CO 3	2	2					2					
CO 4					2		2					
CO 5			2		3			3				
CO 6			2				2					
CO 7					3			3				
CO 8		3			3				2			

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4	✓			✓
CO 5	✓	✓		✓
CO 6	✓	✓		✓
CO 7	✓	✓		✓
CO 8	✓			✓

**References**

1. "Sports Nutrition: A Practice Manual for Professionals" Marie Dunford, 4th ed.(2006), Academy of Nutrition and Dietetics.
2. "Clinical Sports Nutrition", Burke, L., & Deakin, V. 5th ed. (2015), McGraw-Hill Education.
3. "Sport Nutrition" , Jeukendrup, A., & Gleeson, M. 3rd ed. (2019), Human Kinetics.
4. "Exercise Physiology: Nutrition, Energy, and Human Performance" McArdle, W. D., Katch, F. I., & Katch, V. L. 9th ed. (2022). Lippincott Williams & Wilkins
5. "Sport Nutrition for Health and Performance" Manore, M. M., Meyer, N. L., & Thompson, J. L. 2nd ed. (2017), Human Kinetics.
6. "Sports Nutrition: A Handbook for Professionals" Christine Rosenbloom and Christine Karpinski 6<sup>th</sup> ed. (2017)
7. "Nancy Clark's Sports Nutrition Guidebook" Nancy Clark 5<sup>th</sup> ed. (2013), Human Kinetics Publishers

8. "Essentials of Sports Nutrition and Supplements" Jose Antonio, Douglas Kalman, Jeffrey R. Stout, Mike Greenwood, Darryn Willoughby, and G. Gregory Haff (2008), Springer
9. "Nutrition for Health, Fitness & Sport" by Melvin Williams, Eric Rawson and, David Branch 11<sup>th</sup> ed. (2016), McGraw-Hill Education.
10. "Advanced Sports Nutrition" Dan Benardot, 2nd ed. (2011), Human Kinetics Publishers,
11. Exercise Physiology: Nutrition, Energy, and Human Performance by William D. McArdle, Frank I. Katch, and Victor L. Katch 8<sup>th</sup> ed. (2014), Lippincott Williams & Wilkins
12. Sports Dietitians Australia (<https://www.sportsdietitians.com.au/>)
13. Academy of Nutrition and Dietetics - Sports, Cardiovascular, and Wellness Nutrition (<https://www.eatright.org/sports>)
14. International Society of Sports Nutrition (<https://www.sportsnutritionistsociety.org/>)
15. American College of Sports Medicine (<https://www.acsm.org/>)
16. The British Dietetic Association - Sports Nutrition (<https://www.bda.uk.com/>)



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK7DSEHSC403</b>				
Course Title	<b>EARLY INTERVENTION AND MANAGEMENT</b>				
Type of Course	<b>DSE</b>				
Semester	VII				
Academic Level	400 - 499				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3 hours	-	2	5
Pre-requisites					
Course Summary	<p>This course provides an in-depth exploration of early intervention and management strategies in child development. Students will examine the critical role of early intervention in addressing developmental delays, disabilities, and disorders in children. Through a combination of theoretical concepts, practical case studies, and evidence based strategies, students will develop the knowledge and skills necessary to support the holistic development of children.</p>				

**Detailed Syllabus:**

<b>Module</b>	<b>Unit</b>	<b>Content</b>	<b>Hrs</b>
<b>I</b>	<b>INTRODUCTION TO EARLY INTERVENTION</b>		<b>12</b>
	<b>1</b>	Importance of early intervention, Developmental milestones and challenges	
	<b>2</b>	Tools and techniques for assessment, Early identification and management of developmental delays.	
	<b>3</b>	Introduction to assessment tools used in early intervention and screening for developmental delays and Autism – TDSC, DASII, DOC, Denver, CDC grading for major motor milestones, MCHAT, Autism screening tool, Language Evaluation Scale Trivandrum (LEST), Bayley’s scale, assessment of vision and hearing in early infancy, other informal and formal tools and instruments.	
	<b>4</b>	Ethical guidelines in early intervention.	
<b>II</b>	<b>EARLY INTERVENTION STRATEGIES</b>		<b>12</b>
	<b>5</b>	Development and implementation of Individualised Early Intervention Programme (IEP), setting therapy goals.	
	<b>6</b>	Importance and role of occupational therapy in early intervention.	
	<b>7</b>	Sensory integration, speech, language and communication, special education.	
	<b>8</b>	Organisation of early intervention services in the community.	
<b>III</b>	<b>EARLY DEVELOPMENTAL STIMULATION: FAMILY CENTRED CARE</b>		<b>12</b>
	<b>9</b>	Early stimulation – meaning, definition and importance.	
	<b>10</b>	Role of parents in early stimulation. Who needs early stimulation.	
	<b>11</b>	Early stimulation programme upto 15 months.	
	<b>12</b>	Massaging techniques, materials used for early stimulation.	

<b>IV</b>	<b>EARLY INTERVENTION FOR DEVELOPMENTAL DELAYS</b>		<b>12</b>
	<b>13</b>	Stimulation techniques for vision, hearing, speech and communication and attention.	
	<b>14</b>	Techniques of intervention for head control, rolling, creeping, sitting, standing and walking, development of hand functions.	
	<b>15</b>	Age appropriate toys and their role in intervention.	
	<b>16</b>	Evaluation of intervention progress and social support.	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>12</b>
	<b>17</b>	Visit to early intervention centres.	
	<b>18</b>	Develop an individualized intervention plan for a hypothetical child with specific developmental needs.	
	<b>19</b>	Document case studies of children with developmental delay.	
	<b>20</b>	Learn about assessment techniques-attention and concentration, neuro-psychological test battery.	
	<b>21</b>	Preparation of low cost stimulation materials for holistic development of infants.	
	<b>22</b>	Collaborate with peers to present a case study highlighting effective early intervention strategies and management approaches.	

### **COURSE OUTCOMES**

<b>No.</b>	<b>Upon completion of the course the graduate will be able to</b>	<b>Cognitive Level</b>	<b>PSO addressed</b>
CO-1	Differentiate between normal and abnormal milestones.	U, An	PSO- 2,6
CO-2	Understand the importance of early intervention in child development.	U	PSO- 1,2
CO-3	Explore evidence based strategies for early intervention and management.	U, Ap	PSO- 3,4
CO-4	Develop skills in creating individualized interventions plans for children.	Ap, An, E	PSO- 2,3,4
CO-5	Enhance critical thinking and problem solving abilities in the context of child development.	An, E	PSO- 3,5
CO-6	Spread awareness to the community on the importance and techniques of early intervention.	An, E, C	PSO- 6,7

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*University of Kerala: Four Year Undergraduate Programme in Home Science 2024*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	Differentiate between normal and abnormal milestones.	PO-1,2 PSO- 2,6	U, An	F, C	L	
2	Understand the importance of early intervention in child development.	PO-1,3 PSO- 1,2	U	F, C	L	
3	Explore evidence based strategies for early intervention and management.	PO-3,4 PSO- 3,4	U, Ap	C, P	L	
4	Develop skills in creating individualized intervention plans for children.	PO-6,7 PSO- 2,3,4	Ap, An, E	C, P	L	
5	Enhance critical thinking and problem solving abilities in the context of child development.	PO-8 PSO- 3,5	An, E	P, M	L	
6	Spread awareness to the community on the importance and techniques of early intervention.	PO-1,2,5 PSO- 6,7	An, E, C	P, M	L	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**



**Mapping of COs with PSOs and POs :**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	P O3	PO 4	PO 5	P O6	P O7	P O8
CO 1	-	2	-	-	-	3	-	3	3	-	-	-	-	-	-
CO 2	2	3	-	-	-	-	-	3	-	3	-	-	-	-	-
CO 3	-	-	3	3	-	-	-	-	-	2	3	-	-	-	-
CO 4	-	2	2	2	-	-	-	-	-	-	-	-	3	3	-
CO 5	-	-	3	-	3	-	-	-	-	-	-	-	-	-	3
CO 6	-	-	-	-	-	3	3	3	3	-	-	3	-	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Discussion / Seminar/ Interviews
- Midterm Exam
- Case study Analysis
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Case study Analysis	End Semester Examinations
CO 1	✓	✓	✓	✓
CO 2	✓	✓	✓	✓
CO 3			✓	
CO 4	✓	✓	✓	✓
CO 5	✓	✓		✓
CO-6	✓	✓		✓

**Reference Books:**

1. Aggarwal, J. C. (2007). Early childhood care and education: principles and practices. New Delhi: Shipra.
2. Berk, L.E. (2017). Child development (9th ed.). New York: Pearson
3. Gupta, S. (2009). Early childhood care and education. PHI learning Pvt. Ltd., New Delhi
4. Keenan, T., Evans, S., & Crowley, K. (2016). An introduction to child development Sage.
5. Kennedy, L., & Tippis, s. (2000). Guiding children's learning of mathematics (9th ed.). USA: Wadsworth.
6. Lightfoot, C., Cole, M., & Cole, S. (2012). The development of children (7ed.). New York: Worth Publishers.
7. Saraswathi, T.H., Menon, S., & Madan, A. (Eds.) (2018). Childhoods in India Traditions, trends and transformations. New Delhi. Routledge.
8. Smith, (2000). Occupational therapy for children and adolescents.
9. Taraporevala, R., & Chhugani, N. (2002). Early childhood years. Handbook for parents and teachers. Mumbai: English Edition Publishers.

**Web Resources:**

1. <https://www.mentalhealth.gov.early-intervention/>
2. <https://www.early-intervention-program.gov/>
3. <https://raisingchildren.net.au.discipline-webmd>.
4. <https://www.nagc.org>
5. <https://www.freepsychotherapybooks.org/ebook/existential-child-therapy>
6. <http://catdir.loc.gov/catdir/samples/cam032/99025362.pdf>
7. <https://www.samadhanindia.org/programmes/early-intervention.html/>
8. <https://www.mncindia.org/upanayan.html/>



University of Kerala

Discipline	HOMESCIENCE				
Course Code	UK7DSEHSC404				
Course Title	URBAN AND RURAL DEVELOPMENT				
Type of Course	DSE				
Semester	VIII				
Academic Level	400 -499				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3+1	3	-	2	5
Pre-requisites					
Course Summary	The course enlightens students on the challenges faced by the ever-increasing population in both rural and urban areas that present severe problems of scarcity of resources such as water, housing, power, transport etc. drawing immediate attention for bringing in appropriate solutions for the resultant environmental pollution degradation and decay. The course deliberates an overall picture of the current scenario of rural, urban and tribal development and the governmental initiatives, programmes and policies towards rural, urban and tribal upliftment.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>RURAL DEVELOPMENT AND RURAL POVERTY ALLEVIATION PROGRAMMES</b>		<b>15</b>
	1	History of Rural Development in India, Timeline initiatives and efforts on rural upliftment. Rural Development Programmes in India-an overview	
	2	Current Poverty Alleviation Programmes for rural areas, Women-centred initiatives for Poverty Alleviation- Self-help Groups, Micro Finance, Womens' Cooperatives, Health and Nutrition Programmes, Technology Adoption- womens' access to ICT	
	3	Rural Women Empowerment-Policies and Programmes	

<b>II</b>	<b>RURAL COMMUNICATION</b>		<b>15</b>
	4	Rural Communication-Concept, Characteristics and Scope. Functions of rural communication and Challenges. Community Radio and TV	
	5	Impact of PRI in Rural Development and Governance	
<b>III</b>	<b>URBAN DEVELOPMENT</b>		<b>15</b>
	6	Urban Development-Definition, Nature and Scope, Theories of Urban Development- Classical, Modern	
	7	Challenges and consequences of Urban inequalities	
	8	Addressing Urban Poverty- Current initiatives and programmes for poverty mitigation, Social Security Programmes for Urban areas -Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) Pradhan Mantri Awas Yojana (Urban) Atal Mission for Rejuvenation and Urban Transformation (AMRUT)	
<b>IV</b>	<b>TRIBAL DEVELOPMENT</b>		<b>15</b>
	9	Tribal Studies- Concept, Definition. Approaches to Tribal Development, Challenges and Opportunities for Economic Development of Indigenous Societies and their Sustainability	
	10	Pradhan Mantri Van Dhan Yojana, Tribal Research Institutes, Eklavya Model Residential Schools, Tribal Repository, Tribal Digital Document Repository. Adverse impact of Tribal Developmental Efforts- Discontent, Resistance, Marginalisation, Exclusion, Others	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>15</b>
	11	Active participation in Community Radio Programme	
	12	Collect factual data and conduct classroom presentation on various parameters of rural and urban development	
	13	Conduct multimedia presentation on Rural Urban and Tribal Development initiatives	
	14	Conduct an awareness drive through skits/stage plays on the recent trends and programmes for rural urban and tribal upliftment	
	15	Organise Quiz programmes/ Talks/ Discussions on various aspects of Rural, Urban and Tribal upliftment	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand in detail and analyse on the history as well as the timeline initiatives on Rural Development. Comprehend on Poverty Alleviation Programmes and associated women-centred initiatives. An overall understanding of the concept of rural women empowerment as a strong base for rural upliftment and poverty alleviation	U, An	PSO-1,5
CO-2	Gain understanding of rural communication-Concept, characteristics, functions, barriers and challenges and a closer understanding of how community radio and community TV weaves into the lives of rural folks in bringing them together for upliftment. Impact of PRI	U, An, Ap	PSO-2, 4, 5
CO-3	Get an impression of the concept, nature and scope of urban development, theories associated with urban development, urban inequalities, it's consequences. Address urban poverty	U, An	PSO-5
CO-4	Attain knowledge on the concept, definition and objectives of Tribal Studies and the different approaches to tribal development. An insight into the challenges, opportunities on their development and sustainability	U, An	PSO-5
CO5	Develop competencies in translating the knowledge gained to practice strategies aimed at effecting development in urban, rural and tribal areas.	U, Ap	PSO – 4, 5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: Urban and Rural Development Credits: 4:0:0 (Lecture:4  
Tutorial: 0 Practical:0)**

CO No.	CO	PO/ PSO	Cognitive Level	Knowledge Category	Lecture(L)/ Tutorial (T)	Practical (P)
CO-1	Understand in detail and analyse on the history as well as the timeline initiatives on Rural Development. Comprehend on Poverty Alleviation Programmes and associated women-centred initiatives. An overall understanding of the concept of rural women empowerment as a strong base for rural upliftment and poverty alleviation	PSO-1,5	R, U, An	F, P	L, T	-
CO-2	Gain understanding of rural communication-Concept, characteristics, functions, barriers and challenges and a closer understanding of how community radio and community TV weaves into the lives of rural folks in bringing them together for upliftment	PSO-5	U, An, Ap	F, C, P	L, T	

CO-3	Get an impression of the concept, nature and scope of urban development, theories associated with urban development, urban inequalities, it's consequences. Address urban poverty.	PSO-5	U, An, Ap	F, C	L, T	
CO-4	Attain knowledge on the concept, definition and objectives of Tribal Studies and the different approaches to tribal development. An insight into the challenges, opportunities on their development and sustainability	PSO-5	U, An	F	L, T	
CO-5	Develop competencies in translating the knowledge gained to practice strategies aimed at effecting development in urban, rural and tribal areas	PSO -5	U, Ap	P	P	

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and PO s:**

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
<b>CO 1</b>	1	-	-	-	-	-	1	-	-	-	1	-	-	-	-
<b>CO 2</b>	2	3	-	-	-	-	-	1	-	-	-	-	-	-	-
<b>CO 3</b>	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
<b>CO 4</b>	-	-	2	3	-	-	-	-	-	-	-	-	-	-	-
<b>CO5</b>	-	-	3	3	2	-	-	-	-	3	3	-	-	-	-

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics:**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓



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4. Tribal Studies in India: Perspectives of History, Archeology and Culture, 2019, Behre, M. C, Springer Nature, Singapore
5. Frontiers of urban and rural planning, E-ISSN – 2371- 6661,
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# **SEMESTER 8**



**University of Kerala**

Discipline	HOME SCIENCE				
Course Code	<b>UK8DSCHSC400</b>				
Course Title	<b>DIGITAL MEDIA AND MARKETING</b>				
Type of Course	<b>DSC</b>				
Semester	VIII				
Academic Level	400-499				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4	-	-	4
Pre-requisites	None				
Course Summary	<p>The course "Digital Media and Marketing" provides students with a comprehensive understanding of the role of digital media in contemporary marketing practices. The students will explore key concepts, strategies, and tools used in digital marketing campaigns. The course emphasizes the importance of leveraging digital platforms, analytics, and consumer insights to create impactful marketing strategies and engage with target audiences effectively in the digital landscape.</p>				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>FUNDAMENTALS OF DIGITAL MEDIA</b>		<b>9</b>
	1	Understanding different types of digital media	
	2	Basic Communication models, 7 C's of Effective Communication, Concept of target audience	
	3	Social Media Trend Analysis	

<b>II</b>	<b>DIGITAL MEDIA MARKETING</b>		<b>9</b>
	4	Fundamentals of Digital marketing & Its Significance.	
	5	Traditional marketing Vs Digital Marketing, Evolution of Digital Marketing, Digital Marketing Landscape, Key Drivers, Digital Consumer & Communities.	
	6	The Digital users in India, Digital advertising Market in India, Skills in Digital Marketing, Digital marketing Plan.	
	7	Ethical issues in digital media.	
<b>III</b>	<b>TECHNIQUES IN MARKETING</b>		<b>9</b>
	8	Necessity of Marketing, Building a Successful strategy: Goal Setting, Implementation.	
	9	Terminology used in Digital Marketing, PPC and online marketing through social media, Social Media Marketing, Keyword advertising, Google web-master and analytics overview, Affiliate Marketing, Email Marketing, Mobile Marketing	
	10	Facebook Marketing: Facebook for Business, Facebook Insight, Different types of Ad formats, Setting up Facebook Advertising Account	
	11	Facebook audience & types, Designing Facebook Advertising campaigns, Facebook Avatar, Apps, Live, Hashtags.	
<b>IV</b>	<b>SEO TOOLS &amp; ADVERTISEMENT</b>		<b>9</b>
	12	Introduction to SEO, How Search engine works, SEO Phases, History Of SEO, How SEO Works What is Googlebot (Google Crawler), Types Of SEO technique, use of Keywords, Keyword Planner tools	
	13	Digital media Reach- Video Creation & Submission, Maintenance- SEO tactics, Google search Engine, Other Suggested tools	
	14	Advertising & its importance, Digital Advertising, Different Digital Advertisement. YouTube Advertising:- YouTube Channels, YouTube Ads, Type of Videos, Buying Models, Targeting & optimization, Designing & monitoring Video Campaigns, Display campaigns	
<b>V</b>	<b>RELATED EXPERIENCES</b>		<b>9</b>
	15	Setting up of individual social media platforms/ pages	
	16 17	Content creation using different tools – Audio/ Visual/ Audio Visuals Audience Analysis through any of the digital marketing techniques	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the principles and concepts of digital media and marketing.	R	PSO-1
CO-2	Analyze consumer behavior and digital trends to inform digital marketing strategies.	U, An	PSO-2, PSO-3, PSO-5
CO-3	Demonstrate proficiency in using digital marketing tools and platforms.	Ap	PSO-3 PSO-5
CO-4	Develop and implement digital marketing campaigns, including content creation and audience engagement.	Ap, C	PSO-3 PSO-5
CO-5	Evaluate the effectiveness of digital marketing campaigns using metrics and analytics.	E	PSO-3 PSO-5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

**Name of the Course: DIGITAL MEDIA & MARKETING Credits: 3:0:0  
(Lecture:3 Tutorial: 0 Practical:0)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
1	CO-1	PSO-1	R	F	L	
2	CO-2	PSO-2, PSO-3, PSO-5	U, An	F,C	L	
3	CO-3	PSO-3 PSO-5	Ap	C,P	L	P
4	CO-4	PSO-3 PSO-5	Ap, C	C,P	L	P
5	CO-5	PSO-3 PSO-5	E	C,P	L	P

**F-Factual, C- Conceptual, P-Procedural, M-Metacognitive**

**Mapping of COs with PSOs and POs :**

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
CO 1	2										2	
CO 2		2	2		3							
CO 3			2		2				2			2
CO 4			2		2		2	2	3			3
CO 5			3		2		3	3	2			3

**Correlation Levels:**

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3	✓	✓		✓
CO 4	✓	✓		✓
CO 5	✓	✓	✓	✓

**References:**

1. Practical Web Analytics for User Experience, How Analytics Can Help You Understand Your Users, By Michael Beasley · 2013.
1. Advanced Web Metrics with Google Analytics By Brian Clifton · 2010
2. Digital Marketing –Kamat and Kamat-Himalaya
3. Marketing Strategies for Engaging the Digital Generation, D. Ryan,
4. Digital Marketing, V. Ahuja, Oxford University Press
5. Digital Marketing, S.Gupta, McGraw-Hill
6. Quick win Digital Marketing, H. Annmarie , A. Joanna, Paperback edition



University of Kerala

Discipline	HOME SCIENCE				
Course Code	<b>UK8DSCHSC401</b>				
Course Title	<b>ERGONOMICS IN WORKSPACE DESIGN</b>				
Type of Course	<b>DSC</b>				
Semester	VIII				
Academic Level	400 - 499				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	4	4	-	-	4
Pre-requisites					
Course Summary	<p>Workspace design has a profound impact on the productivity of workers. Making the best use of space through optimum placement of equipment, integrating the human factor into workplace design, and effectively aligning the workplace into the surrounding environment are important aspects of ergonomics. The course entitled Ergonomics in Work Space Design gives an insight into the principles of ergonomics to be followed while designing an ergonomic computer workstation and kitchen. It also makes the students aware of the musculoskeletal disorder associated with poor work space design.</p>				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>INTRODUCTION TO ERGONOMICS</b>		<b>15</b>
	1	Ergonomics- definition ,concept and significance.	
	2	Domains of ergonomics – physical, cognitive and organisational	
	3	Principles of ergonomics	
	4	Reactive and proactive ergonomics	



<b>II</b>	<b>ERGONOMICS IN COMPUTER WORK STATION DESIGN</b>		<b>15</b>
	5	Workstation design guidelines- Design of Chair and desk, keyboard/mouse height, screen height, wrist support, accessories, lighting and screen reflections.	
	6	Guidelines for maintaining neutral body postures of hand, head, shoulders, back, thighs, knees and feet	
	7	Types of breaks –eye breaks, micro breaks, ergonomic software, rest breaks and exercise breaks.	
	8	Ergonomic products available for setting a computer work station.	
<b>III</b>	<b>ERGONOMICS IN KITCHEN DESIGN</b>		<b>15</b>
	9	Types of Kitchen	
	10	Kitchen work flow considerations and work triangle	
	11	Ergonomic kitchen-definition	
	12	Work zone considerations of an ergonomic kitchen-working and reaching height, navigating space, equipment placement, storage, flooring, lighting and ventilation	
	13	Optimal measurements for efficient work space	
<b>IV</b>	<b>MUSCULO SKELETAL DISORDERS(MSDS) ASSOCIATED WITH POOR WORK SPACE DESIGN</b>		<b>15</b>
	14	Musculo skeletal disorders-definition	
	15	Causes, types and prevention of Musculo-skeletal disorders due to poor work space design.	
<b>V</b>	<b>RELATED EXPERIENCE</b>		<b>15</b>
	16	Assessment of pictures of kitchen from ergonomic point of view	
	17	Assessment of a computer work station design at home/office/shop	
	18	Measurement of work heights at horizontal and vertical plane	

**COURSE OUTCOMES**

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Understand the concept of ergonomics and its principles	U	PSO-1, 2, 3,5
CO-2	Understand and apply the ergonomic considerations for an efficient computer work station and kitchen.	U,An,Ap	PSO-1,2,3,5
CO-3	Analyse the problems associated with a poor work space design.	U,An	PSO-1, 2,3,5
CO-4	Evaluate a computer work station and a kitchen based on ergonomic principles	U, An . E	PSO-1,2,3,5

**R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create**

*Note: 1 or 2 COs/module*

**Name of the Course: Credits: 4:0:0 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/ Tutorial (T)	Practical (P)
CO-1	Understand the concept of ergonomics and its principles	PSO-1, 2, 3,5,6 PO-1,2,3,6	U	F, C,P,M	L	-
CO-2	Understand and apply the ergonomic considerations for an efficient computer work station and kitchen.	PSO-1,2,3,5,6 PO-1,2,3,6	U,An,Ap	F, C,P,M	L,T	-

CO-3	Analyse the problems associated with a poor work space design.	PSO-1, 2,3,5,6 PO-1,2,3,6	U,An	F, C,P,M	L,T	-
CO-4	Evaluate a computer work station and a kitchen based on ergonomic principles	PSO-1,2,3,5,6 PO-1,2,3,6	U,An,E	F, C,P,M	L,T	-

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PS O1	PS O2	PS O3	PS O4	PS O5	PS O6	PS O7	PO 1	PO 2	PO 3	PO 4	PO 5	P O6	PO 7	PO 8
CO 1	3	3	2	-	3	1	-	3	2	2	-	-	3	-	-
CO 2	3	3	3	-	3	1	-	3	3	3	-	-	3	-	-
CO 3	3	3	3	-	3	1	-	3	3	3	-	-	3	-	-
CO 4	3	3	3	-	3	1	-	3	3	3	-	-	3	-	-

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
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Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
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**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓	✓		✓
CO 2	✓	✓		✓
CO 3		✓	✓	✓
CO 4		✓	✓	✓

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