



University of Kerala

Discipline	BOTANY				
Course Code	UK1DSCBOT104				
Course Title	PLANTS IN DAILY LIFE				
Type of Course	DSC				
Semester	I				
Academic Level	100 - 199				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	04	03 Hours	-	02 Hours	05 Hours
Pre-requisites	No Pre-requisites				
Course Summary	The course 'Plants in Daily Life' explores the diverse roles plants play in our everyday lives, such as nutrition, medicine, industry, and culture. Students learn about the botanical characteristics, innovative uses, and practical applications of various plant species. The course emphasizes the importance of sustainable practices and the conservation of plant resources for future generations.				

Module	Unit	Content	Hrs
I	Plant services to humans in everyday life		06
	1	Introduction to the science of Botany, plant resources in everyday life.	
	2	Role of plants: Air purifier (Photosynthesis); Plants used in rituals/festivals; pollution removal (Phytoremediation), Pollution indicator (lichens), and nutrient source (litter, manure).	
	3	Herbal basket: Following plants to be studied with respect to botanical source, part of the plant used, and medicinal uses: <i>Ocimum sanctum</i> , <i>Adhatoda vasica</i> , <i>Zingiber officinale</i> , <i>Curcuma longa</i> , <i>Aloe vera</i> , <i>Andrographis paniculata</i> , <i>Cymbopogon citratus</i> , <i>Coleus aromaticus</i> , <i>Acorus calamus</i> , <i>Boerhaavia diffusa</i> , <i>Oldenlandia corymbosa</i> .	
II	Plant resources and utilization-I		04
	4	Botany and utility of the following plants: a. Cereals: Rice, Wheat, Maize b. Millets: Ragi, Jowar, and Bajra c. Legumes: Bengal gram, Green gram, Black gram d. Cash crops: Cashew, Sugarcane, and Cocoa e. Non-alcoholic beverages: Tea, Coffee	

		f. Alcoholic beverage: Toddy (Coconut tree), Palm vine (Palm) g. Vegetable Crops: Cabbage, Brinjal	
III	Plant resources and utilization-II		06
	5	Fibers: Cotton, Coir, Banana (Separation, storing, and drying of fibers from Banana leaf sheath). (in brief). Psychoactive drugs from Hemp and poppy and their mode of action. (in brief).	
IV	Utilization of plants in value-added products		14
	6	Herbal Cosmetics- Introduction, scope and advantages over Synthetic Cosmetics- Cosmaceuticals.	
	7	Plants used in Skincare - Aloe, Cucumber, Facewash- Rosewater, Hair wash - Hibiscus and Amla, Face creams - Papaya, Turmeric, Hair dyes - Henna, Indigofera, Hair growth- Eclipta.	
	8	Herbal infusions – Clitoria, Hibiscus, Tulsi, Guava leaf	
	9	Preparation of natural dyes from Marigold, Hibiscus. (Brief account only).	
	10	Plants used for Aromatherapy – Essential oils from Citrus, Sandal, and Lavender.	
V	Modern applications and innovations		15
	11	Innovative uses of plants in fields such as a) Biofuels- plant sources-bio-diesel production process - converting plant materials into biofuels (brief account) b) Phytoremediation- Use of plants to remediate polluted environments - contaminated soil and water bodies. c) Case studies of successful phytoremediation projects targeting different types of pollutants (brief account)	

Practicals		
	<ol style="list-style-type: none"> 1. Study and identification of plants mentioned in the floral basket category 2. Visit to tea and coffee processing unit and report the same 3. Collect and properly preserve the economically used plants or plant products 4. Identify the plants of economic importance within the Campus and preparation of a report 5. To conduct an exhibition of the economically used plants or plant products. 6. Demonstration on Preparation of herbal dye 7. Demonstration on the preparation of herbal infusion 	30

Suggested Reading

1. Kochhar, S.L. (2012). Economic Botany in Tropics, MacMillan & Co. New Delhi, India.
2. Wickens, G.E. (2001). Economic Botany: Principles & Practices. Kluwer Academic Publishers, The Netherlands.