

Practical Plan

Name of the college: Government College of Arts, Science & Commerce, Sanquelim-Goa		
Name of Faculty: Dr Tanvi Nitin Prabhu	Subject: Botany	
Paper code: BOT 241	Program: S.Y.B.Sc	Batch: - NA
Academic year: 2025 - 2026	Semester: III	Total Practicals/Labs: 15
Credits: 01		
Course Objectives: 1. Impart knowledge on the use of medicinal and aromatic plants in the manufacture of herbal drugs, cosmeceuticals and nutraceuticals. 2. Focus on developing entrepreneurial skills by imparting hands-on training in the preparation of herbal products.		
Expected Course Outcome: 1. Recall the importance of medicinal and aromatic plants for preparation of herbal medicines. 2. Describe the methods for preparation of crude herbal extracts and drug evaluation. 3. Apply the acquired knowledge and skills to prepare herbal products. 4. Analyse the use of herbal plants for preparation of cosmeceuticals and nutraceuticals.		
Student Learning Outcome: 1. Recall the importance of medicinal and aromatic plants for preparation of herbal medicines. 2. Describe the methods for preparation of crude herbal extracts and drug evaluation. 3. Apply the acquired knowledge and skills to prepare herbal products. 4. Analyse the use of herbal plants for preparation of cosmeceuticals and nutraceuticals.		

Month	Practicals/Labs Scheduled Date	No. of Practical/Labs planned	List of Experiments	Reference books
June 2025	28.06.2025	01	Study of biological source, organoleptic characters, chemical constituents and medicinal uses of the following plants: <i>Allium sativum</i> , <i>Andrographis paniculata</i> , <i>Bixa orellana</i> , <i>Boerhavia diffusa</i> , <i>Catharanthus roseus</i> , <i>Centella asiatica</i> , <i>Garcinia indica</i> , <i>Hemidesmus indicus</i> , <i>Justicia adhatoda</i> , (fresh specimens or photographs).	. Kumaresan, V (2015). Herbal Biotechnology and Pharmacognosy. Saras Publication, Tamil Nadu. Rosaline, A (2011). Pharmacognosy. MJP Publishers, Chennai.
July 2025	05.07.2025	01	Study of biological source, organoleptic characters, chemical constituents and medicinal uses of the following plants: <i>Ocimum sanctum</i> , <i>Phyllanthus emblica</i> , <i>Piper longum</i> , <i>Rauwolfia serpentina</i> , <i>Saraca indica</i> and <i>Tinospora cordifolia</i> (fresh specimens or photographs).	
	12.07.2025	01	Study of organoleptic and microscopic characters, chemical constituents and medicinal uses of the following herbs: <i>Aloe vera</i> - leaf, <i>Coriandrum sativum</i> - fruit, <i>Curcuma longa</i> - rhizome, <i>Cymbopogon citratus</i> - leaf, <i>Drimys indica</i> - bulb scale and <i>Zingiber officinale</i> - rhizome (fresh specimens).	
	19.07.2025	01	Preparation of herbal decoction for common cold (demonstration). Preparation of lemon grass or mint tea/infusion (demonstration).	
	26.07.2025	01	Microscopic evaluation and chemical tests (Metanil yellow test and chalk powder test) to detect adulteration of turmeric powder. Preparation of coriander chutney or any other herbal dish (demonstration).	
August 2025	02.08.2025	01	Preparation of herbal cream (demonstration). Preparation of herbal lotion (demonstration).	

	09.08.2025	01	Preparation of herbal soap (demonstration).
	16.08.2025	01	Preparation of herbal lip balm (demonstration). Preparation of rose water (demonstration). Preparation of herbal hair oil (demonstration).
	23.08.2025	01	Preparation of herbal shampoo (demonstration). Preparation of herbal hair dye (demonstration). Preparation of herbal mouthwash (demonstration).
September	06.09.2025	01	Identification of chemical characters of herbal excipients: Acacia, agar, starch and tragacanth.
	13.09.2025	01	Preparation of herbal infused oils for inhalation, massage oil for local application and bath salts (demonstration).
	20.09.2025	01	Oral presentation and submission of a herbal plant grown by the student.
	27.09.2025	01	Oral presentation and submission of a herbal plant grown by the student.
October	09.10.2025	01	Journal certification