

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: 2026 - 2027	Semester: III	Total Practicals/Labs: 15
Credits: 02		
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 2026	26.06.2026	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 2026	03.07.2026	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).	
July 2026	10.07.2026	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>Drimia indica</i> - bulb scale and <i>Zingiber officinale</i> - rhizome (fresh specimens).	
July 2026	17.07.2026	01	Preparation of herbal decoction for common cold (demonstration). Preparation of lemon grass or mint tea/infusion (demonstration).	
July 2026	24.07.2026	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).	
July 2026	31.07.2026	01	Preparation of herbal cream (demonstration). Preparation of herbal lotion (demonstration).	
August 2026	07.08.2026	01	Preparation of herbal soap (demonstration).	

August 2026	14.08.2026	01	Preparation of herbal lip balm (demonstration). Preparation of rose water (demonstration). Preparation of herbal hair oil (demonstration).	
August 2026	21.08.2026	01	Preparation of herbal shampoo (demonstration). Preparation of herbal hair dye (demonstration). Preparation of herbal mouthwash (demonstration).	
August 2026	28.08.2026	01	Identification of chemical characters of herbal excipients: Acacia, agar, starch and tragacanth.	
September 2026	04.09.2026	01	Preparation of herbal infused oils for inhalation, massage oil for local application and bath salts (demonstration).	
September 2026	11.09.2026	01	Oral presentation and submission of a herbal plant grown by the student.	
September 2026	25.09.2026	01	Oral presentation and submission of a herbal plant grown by the student.	
October 2026	09.10.2026	01	Journal certification	

Assessment Rubrics

Component	Max. Marks
ISA 1	5
ISA 2	5
ISA 3	5
Practical	40
Semester End Exam	NA