

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 322 (Post-harvest Technology of Fruits and Vegetables)	Program: T.Y.B.Sc	Batch: - NA
Academic year: 2025 - 2026	Semester: VI	Total Practicals/Labs: 15
Credits: 01		
Course Objectives: <ul style="list-style-type: none">1. Provide an overview of the various harvesting, handling, storage, packaging and preservation techniques used for post-harvest processing of fruits and vegetables.2. Impart practical skills in preparation of various value-added food products using fruits and vegetables.		
Expected Course Outcome: <ul style="list-style-type: none">1. Recall post-harvest processes and factors influencing post-harvest quality.2. Identify microbial spoilage of fruits and vegetables and use effective methods for preservation and maintaining the quality of fruits and vegetables.3. Utilize effective harvesting, handling and storage strategies for marketing of fruits and vegetables ensuring minimal post-harvest losses4. Develop skills in processing and preparation of different value-added products using fruits and vegetables.		
Student Learning Outcome: <ul style="list-style-type: none">1. Recall post-harvest processes and factors influencing post-harvest quality.2. Identify microbial spoilage of fruits and vegetables and use effective methods for preservation and maintaining the quality of fruits and vegetables.3. Utilize effective harvesting, handling and storage strategies for marketing of fruits and vegetables ensuring minimal post-harvest losses4. Develop skills in processing and preparation of different value-added products using fruits and vegetables		

Month	Practicals/Labs Scheduled Date	No. of Practical/Labs planned	List of Experiments	Reference books
December 2025	11.12.2025	01	Identification (botanical name and family) of fruits and vegetables (grapes, papaya, pineapple, orange, mango, kokum, tomato, lime, ginger, gooseberry and cucumber) used in preparation of value-added products.	
December 2025	18.12.2025	01	Preparation and preservation of tomato ketchup (demonstration).	
January 2026	01.01.2026	01	Preparation of raisins, tutti fruity and ginger/gooseberry candy (demonstration).	
January 2026	08.01.2026	01	a. Demonstration of lime pickle/any suitable pickle. b. Demonstration of dill pickle of cucumber.	
January 2026	15.01.2026	01	a. Demonstration of fermentation of coconut toddy or juice of any suitable fruit for production of vinegar.b. Determination of acetic acid content of vinegar.	
January 2026	22.01.2026	01	Fermentation of fruit juice (pineapple/grapes or any suitable fruit) for preparation of wine and determination of alcohol content using a hydrometer/alcoholometer (demonstration).	
January 2026	29.01.2026	01	Effect of heat on vitamin C content of packaged apple juice beverage.	
February 2026	05.02.2026	01	Preparation of kokum syrup/ginger-lemon concentrate (demonstration).	
February 2026	12.02.2026	01	Preparation of dried kokum rind/raw mango slices (demonstration).	
February 2026	26.02.2026	01	Preparation of orange marmalade and mixed fruit jam (demonstration).	

March 2026	05.03.2026	01	Study of different types of machinery, equipment and packaging materials used in processing/packaging of fruits and vegetables using photographs.	
March 2026	12.03.2026	01	Journal completion and certification	