

Practical Plan

Name of the college: Government College of Arts, Science & Commerce, Sanquelim Goa		
Name of Faculty: Mr. Stephen Fernandes	Subject: Geography- SEC	
Paper code: GOS-241	Program/Course: SYBSc SEC: Principles of Composting	Division: -
Academic year: 2026- 2027	Semester: III	Total Practical/Labs: 15 practical lectures (2hrs duration)
Course Objectives: This course is designed to teach students the principles and practices of composting, the process of breaking down organic waste into nutrient rich soil amendments. Students will learn about the benefits of composting, different composting methods, the science of decomposition, and how to maintain a composting system. The course is designed to provide students with the knowledge and skills necessary to successfully compost organic waste and produce high-quality soil amendments.		
Expected Course Outcomes: By the end of this course, students will be able to: 1. Learn different composting methods and techniques. 2. Understand the key components of a successful composting system. 3. Develop the skills to maintain and troubleshoot a composting system. 4. Learn to apply compost in soil enrichment, erosion control, and plant disease suppression.		
Course Learning Outcome: • Describe the scientific principles, methods, and environmental significance of composting. • Differentiate various composting techniques and analyze factors affecting compost quality and decomposition. • Apply composting techniques to establish and manage composting systems using organic waste. • Evaluate compost quality and troubleshoot operational problems using standard quality parameters.		

Month	Practical/ Labs Scheduled Date	No. of Practi cal's/ Labs Plann ed	List of Experiments	Reference books
June	26/06/2026	02	Composting Materials and Process	1. Cromell, C., and The National Gardening Association. Composting For Dummies. For Dummies, 2010. 2. Jenkins, J. The Humanure Handbook: A Guide to Composting Human Manure. Jenkins Publishing, 2005. 3. Martin, D. L. Rodale's Basic Organic Gardening: A Beginner's Guide to Starting a Healthy Garden. Rodale Books, 2014. 4. McLaughlin, C. The Complete Idiot's Guide to Composting. Alpha Books, 2015.
July	03/07/2026	02	Types of compostable materials	
	10/07/2026	02	Carbon-to-nitrogen ratios	
	17/07/2026	02	Carbon-to-nitrogen ratios	
	24/07/2026	02	Design and construct a compost bin or pile using locally available materials	
	31/07/2026	02	Document the setup process	
August	07/08/2026	02	Initial measurements (e.g., temperature, moisture content).	
	14/08/2026	02	Compost Quality Analysis	
	21/08/2026	02	Test the finished compost for nutrient content (NPK analysis)	

	28/08/2026	02	Test the finished compost for nutrient content (NPK analysis)	
Seotember	04/09/2026	02	Testing pH, and maturity.	
	11/09/2026	02	ISA	
	25/09/2026	02	Revision	
October	09/10/2026	02	Journal Assessment	