



ST. XAVIER'S COLLEGE, MAPUSA GOA

Report of Activity conducted in the Academic Year 2026-27

Name of Activity	Skill Development for Production, Packaging and Marketing of Bioenzyme
Date/ Duration	1 st July 2026 to 2 nd September 2026 2 months
Venue	Microbiology Laboratory
Name of organizing Department/Cell	Dept. of Microbiology
In collaboration with	
Name/s of Faculty Co ordinator	Arina Frank
Stratum of Event	College
Name & details of Resource Person/s if any	NA
Report	A two-month Value-Added Course was designed to provide students with skill-based, hands-on exposure to the conversion of biodegradable organic waste into a value-added microbial product. The activity enabled students to understand the principles of bioenzyme production from plant-based organic waste and gain practical experience in monitoring fermentation processes through systematic observation and documentation. Students were also introduced to product presentation and entrepreneurship through the packaging, labelling and sale of the final product. The activity was conducted through guided, group-based practical work. Students selected suitable biodegradable fermentable materials such as fruit peels, vegetable peels, flower waste, leaf litter or other plant-based organic waste and established bioenzyme fermentation using an appropriate laboratory protocol. During the course, students maintained dated observations and recorded important fermentation parameters, enabling them to relate observable changes to the progress and quality of fermentation. At the completion of fermentation, students packaged the final product in bottles with their own product labels and developed a marketable presentation. They sold the bottles to customers and documented the transactions, including payment details and selling price. This provided practical exposure to the transition of a laboratory product into a basic

	marketable product. Each student prepared an individual laboratory report containing the aim, materials used, methodology and photographic documentation. Each group additionally submitted the final packaged bioenzyme, product label and documentation related to the product sale. As an additional science-communication component, students created a Reel of maximum 90 seconds presenting their bioenzyme product and production process through science-based narration and process visuals. Outcomes: The activity helped students develop technical, laboratory, documentation, entrepreneurial, teamwork, problem-solving and science-communication skills. Students gained hands-on experience in fermentation and bioenzyme production, systematic observation and recording of fermentation changes, product packaging and labelling, and basic marketing through product pricing and sale. The activity also strengthened their ability to prepare scientific reports, work collaboratively, identify and address fermentation-related problems, communicate scientific concepts through digital media, and appreciate the sustainable valorisation of biodegradable organic waste.
Brochure/Poster	NA
Photographs	https://xavierscollegegoa.ac.in/wp-content/uploads/2026/10/Images-of-Skill-Development-for-Production-Packaging-and-Marketing-of-Bioenzyme.pdf
List of participants with signatures	NA
Certificate	N/A