



*Department of Biotechnology
St. Bede's College, Shimla*

ORIENTATION SESSION FOR THE FIRST YEARS

Objective

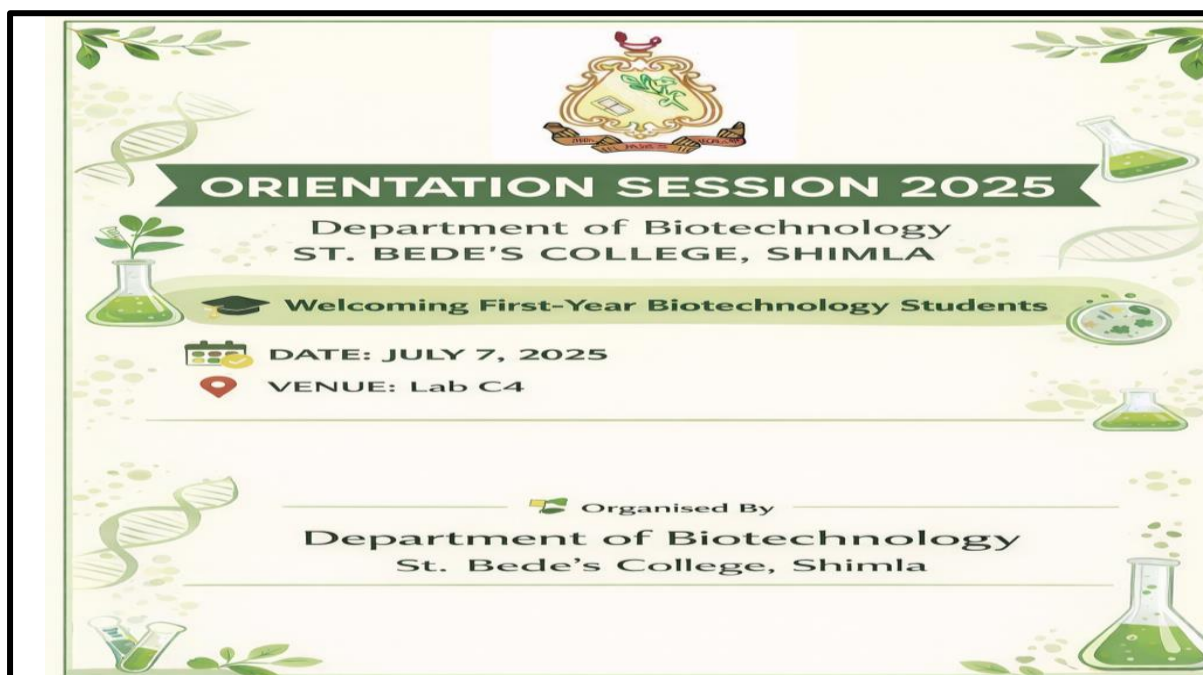
- To welcome first-year biotechnology students and orient them to the academic structure, departmental culture, and opportunities available in the Department of Biotechnology.

Content

The orientation session was organized for first-year students by the Department of Biotechnology. Second- and third-year students actively participated in the programme and warmly welcomed the newcomers. The session included an introduction to the biotechnology curriculum, laboratory practices, departmental activities, and student support systems. Senior students shared their experiences and guided first-year students on academics and campus life, creating an interactive and friendly atmosphere.

Outcome

- The session helped first-year students gain a clear understanding of the programme and feel comfortable within the department. It fostered peer bonding, built confidence among new entrants, and ensured a positive and motivated beginning to their academic journey.





*Department of Biotechnology
St. Bede's College, Shimla*





BIOTECH JOURNAL ACTIVITY

Date: September 9, 2025

Objective of the Activity

- To promote research-oriented learning, enhance scientific presentation skills, and encourage critical understanding of current biotechnological research among third-year biotechnology students.

As part of the Biotech Journal activity, third-year students presented and discussed a research topic titled **“Wound Healing Efficacy of Cellulose Hydrogel in ICR Mice.”** The presentation focused on the biomedical application of cellulose-based hydrogels as wound dressings, highlighting their biocompatibility and role in accelerating wound healing. The study design, use of ICR mice as an experimental model, methodology, and observed healing outcomes were briefly explained, followed by academic discussion.

Outcome of the Activity



*Department of Biotechnology
St. Bede's College, Shimla*


- The activity enhanced students' understanding of experimental research and biomedical applications of biotechnology. It improved their abilities in scientific analysis, presentation, and peer interaction, while fostering interest in translational research and evidence-based learning.

BIOTECH JOURNAL ACTIVITY

Department of Biotechnology
ST. BEDE'S COLLEGE, SHIMLA

Engaging in Scientific Inquiry and Communication

 **DATE: SEPTEMBER 9, 2025**

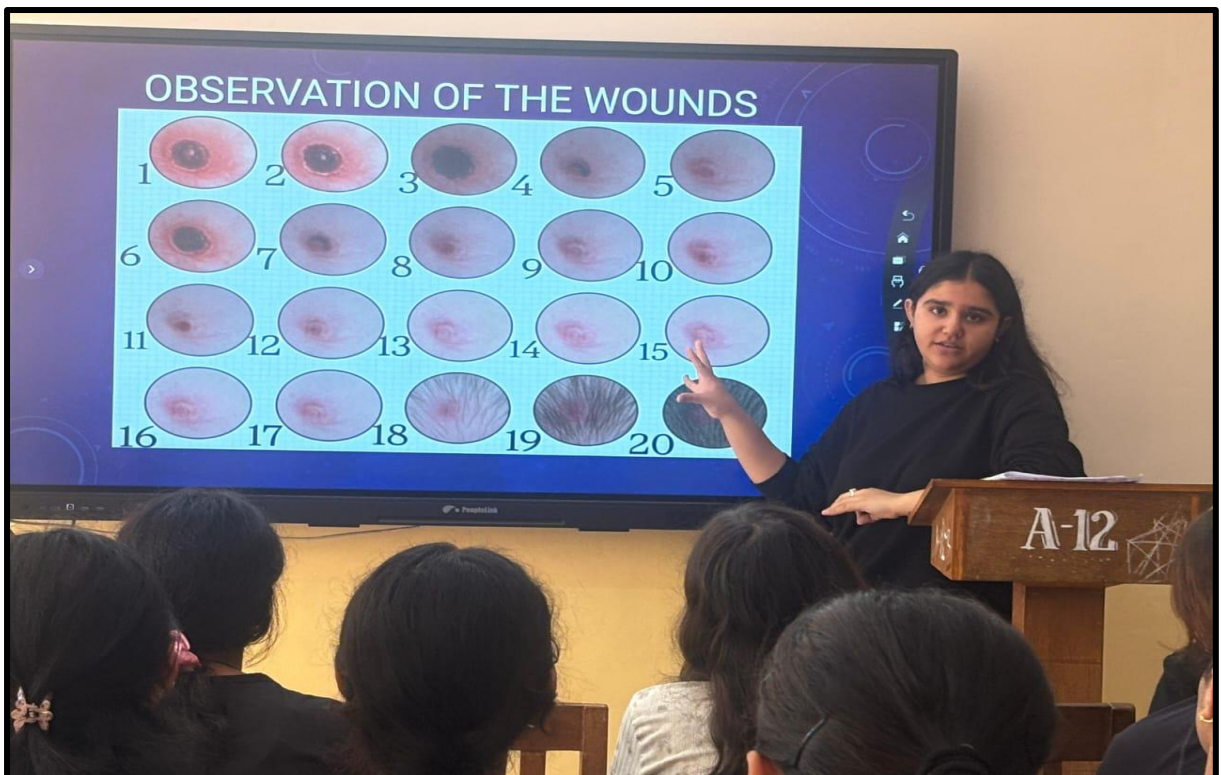
 **VENUE: A12**

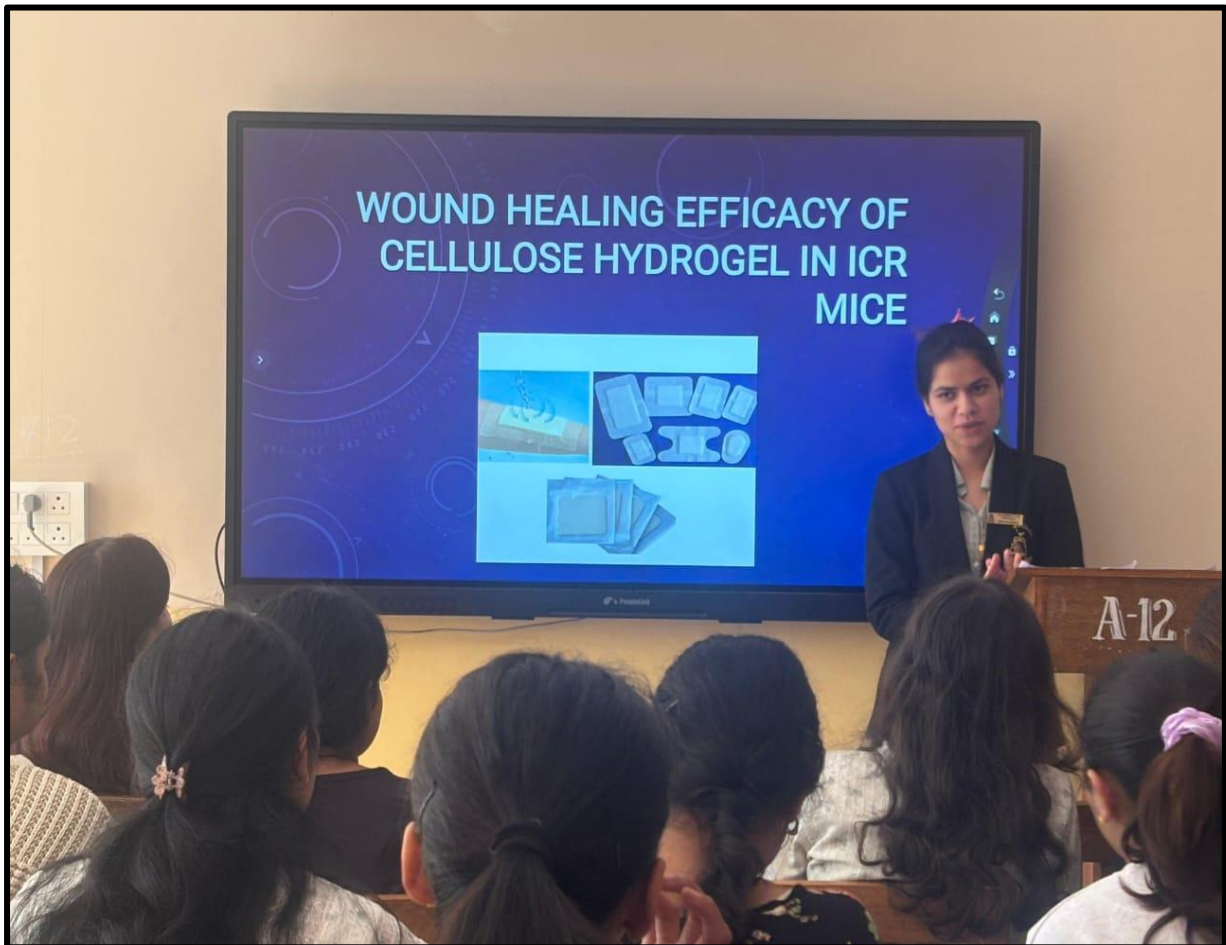
 Organised By _____

Department of Biotechnology
St. Bede's College, Shimla



Department of Biotechnology
St. Bede's College, Shimla





BIOTECH JOURNAL ACTIVITY

Date: October 8, 2025

Objective of the Activity

- To encourage research-based learning, develop scientific presentation skills, and familiarize undergraduate students with emerging and alternative approaches in biotechnology.

The **second session** was conducted by second-year students, who presented on **Phage Therapy**, an alternative therapeutic approach using bacteriophages to combat antibiotic-resistant bacterial infections. The presentation highlighted the concept, mechanism of action, advantages, and clinical relevance of phage therapy in modern medicine.

Outcome of the Activity



*Department of Biotechnology
St. Bede's College, Shimla*

- The activity strengthened students' understanding of contemporary biotechnological applications and research trends. It enhanced their analytical thinking, presentation skills, and confidence in scientific communication, while fostering interest in innovative and translational areas of biotechnology.

BIOTECH JOURNAL ACTIVITY

OCTOBER 8, 2025

VENUE: A12

Organised by
Department of Biotechnology
St. Bede's College, Shimla



*Department of Biotechnology
St. Bede's College, Shimla*





WORLD FOOD DAY

Date: October 16, 2025

Objective

1. To promote awareness about healthy, sustainable, and fireless cooking practices rooted in Indian culinary traditions.
2. To encourage students to adopt nutritious eating habits while celebrating World Food Day.

To commemorate **World Food Day**, a *Fireless Food Cooking Competition* was organised by the Department of Biotechnology, St. Bede's College, Shimla, in compliance with the Indian Knowledge System (IKS), celebrating India's rich culinary heritage while promoting healthy, sustainable eating practices. The event centred around the theme **“Balancing Taste and Wellness the Indian Way,”** inspiring participants to explore nutritious ingredients and traditional methods that require no flame.

The competition witnessed enthusiastic participation from students who showcased remarkable creativity and innovation. Using fresh, wholesome ingredients, they prepared a variety of dishes such as sprout salads, millet-based recipes, fruit chaats, no-flame desserts, and traditional Indian beverages. Each dish reflected the essence of balanced nutrition, mindful cooking, and the integration of indigenous food wisdom.

Judges, Ms. Nivedita Bhardwaj & Miss Jagriti evaluated the entries on parameters including nutritional value, presentation, originality, and adherence to the fireless criteria. The event not only encouraged students to rethink everyday eating habits but also highlighted the importance of sustainable food choices that are both *tasty and health-promoting*.

Overall, the Fireless Cooking Competition successfully conveyed the message of wellness through food, reaffirming the significance of India's time-tested food practices. The celebration proved to be an engaging platform for learning, creativity, and awareness, truly aligning with the spirit of World Food Day.

Outcome

1. Students showcased creativity by preparing nutritious, fireless dishes using traditional and wholesome ingredients.
2. The activity reinforced the importance of balanced nutrition, sustainability, and India's indigenous food wisdom in daily life.



Department of Biotechnology
St. Bede's College, Shimla



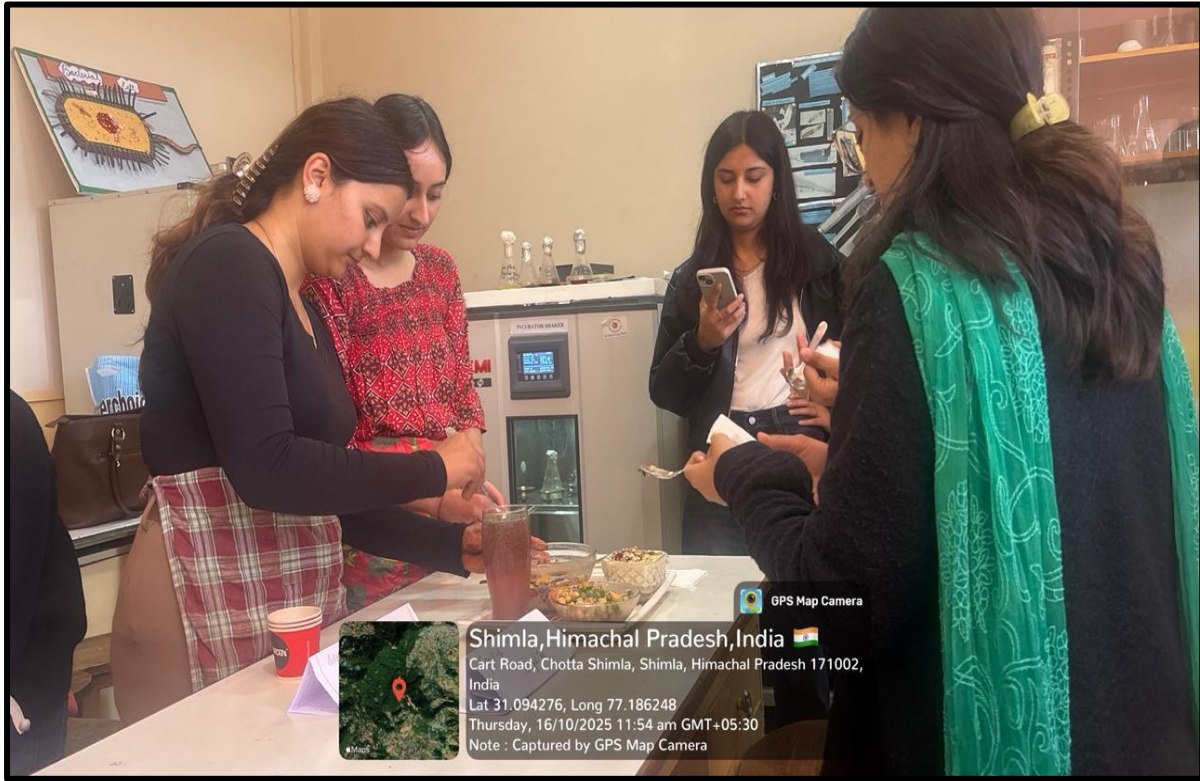


*Department of Biotechnology
St. Bede's College, Shimla*





*Department of Biotechnology
St. Bede's College, Shimla*



**Department of Biotechnology
is organising**

**FIRELESS
COOKING
COMPETITION**

**On the occasion of
WORLD FOOD DAY**

**THEME :
BALANCING
TASTE AND
WELLNESS-THE
INDIAN WAY**

**Date : 16th October, 2025
Venue : c4
Time : 10:30 am**



*Department of Biotechnology
St. Bede's College, Shimla*

COMPOST SALE

Date: December 15, 2025

Objectives:

- Compost sale aimed in promoting organic gardening, solid waste management in homes and reduce dependence on chemical products

Description: The department of Biotechnology along with the NSS Unit of St. Bede's College, Shimla organized a sale of compost on December 15, 2025. The compost was prepared in the composting unit of the college using the food waste material collected from the college mess and canteen. The idea is to promote proper waste collection and its disposal. Composting recycles organic matter, such as leaves and food scraps, into a valuable fertilizer that can enrich soil and plants. The compost was sold under the brand name of Bede's Biocom. The Principal of the college, Sr. T. L. Rosily inaugurated the sale. The faculty and students of the college bought the product.

Outcomes:

- The sale helped promoting team work among students for the purpose of selling objectives to increase sales, and maximizing profits.
- The students and faculty were exposed to the scientific principles underlying the composting process through the perspective of biogeochemical cycles and – more broadly – to notions of eco-citizenship and sustainable development.





Department of Biotechnology
St. Bede's College, Shimla



COMPOST SALE

From Waste to Wealth

Organized by
**DEPARTMENT OF BIOTECHNOLOGY
& NSS**

📅 December
15, 2025

📍 St. Bede's
College
Campus

100% ORGANIC COMPOST

- ✓ Eco-friendly
- ✓ Made from biodegradable campus waste
- ✓ Improves soil health & plant growth
- ✓ Ideal for home gardens & potted plants



"Go Green • Grow Green • Live Green"



*Department of Biotechnology
St. Bede's College, Shimla*

EXPERT TALK: AGRO-BIOTECHNOLOGY THROUGH THE LENS OF INDIA'S TRADITIONAL KNOWLEDGE

Date: December 8, 2025

Objective

1. To highlight the integration of modern agro-biotechnology with India's traditional agricultural knowledge.
2. To create awareness about sustainable and culturally rooted farming practices.

The Department of Biotechnology of St. Bede's College, organized an insightful guest lecture titled "**Agro-Biotechnology Through the Lens of India's Traditional Knowledge**" on **December 8, 2025**. The session aimed to highlight the intersection of modern agricultural biotechnology with India's vast reservoir of indigenous knowledge systems.

The resource person for the lecture was **Dr. Nitika Thakur**, Associate Professor, Faculty of Applied Sciences and Biotechnology, **Shoolini University, Solan**. Dr. Thakur, an expert in agricultural biotechnology, shared valuable perspectives on how traditional agricultural practices, biodiversity conservation, and indigenous wisdom can be integrated with contemporary biotechnological advancements to enhance sustainable farming.

During the lecture, Dr. Thakur discussed India's rich heritage of agrarian traditions, emphasizing the relevance of heirloom seeds, organic farming practices, and crop-diversity-based resilience. She elaborated on the role of biotechnology in improving crop productivity, promoting soil health, and ensuring food security, while underscoring the necessity of maintaining ecological balance.

Students and faculty members actively participated in the interactive session, posing questions on biofertilizers, climate-resilient crops, and the ethical dimensions of modern agricultural innovations. The lecture provided participants with a deeper understanding of how scientific tools can complement time-tested Indian practices to create sustainable and culturally rooted agricultural solutions.

Overall, the event proved to be informative and thought-provoking, successfully enriching the academic exposure of students and fostering appreciation for India's traditional knowledge in the realm of agro-biotechnology.



Outcome

1. Students gained insight into the role of traditional knowledge in enhancing sustainable agro-biotechnological practices.
2. The lecture fostered appreciation for ethical, ecological, and indigenous approaches to modern agricultural innovations.





Department of Biotechnology
St. Bede's College, Shimla






*Department of Biotechnology
St. Bede's College, Shimla*



**DEPARTMENT OF
BIOTECHNOLOGY**
PRESENTS LECTURE ON
Agro-Biotechnology
*Through the Lens of India's Traditional
Knowledge*



DATE AND TIME:
December 8, 2025, 11:00AM

VENUE
Seminar Room

RESOURCE PERSON:
Dr. Nitika Thakur
Associate Professor
Faculty of Applied Sciences and Biotechnology
Shoolini University, Solan



National Science Day

A talk on Assam Biorefinery; From Bamboo to Biofuel – Empowering a Sustainable Future”

Date: February 25, 2026

Objectives:

- To create awareness among the students about the concept of biorefineries with a focus on Assam Biorefinery Project.
- To create awareness about the government's BioE3 policy.


On the occasion of National Science Day celebrated on February 25 2026, a presentation titled “**Assam Biorefinery: From Bamboo to Biofuel – Empowering a Sustainable Future**” was delivered by Aastha Nresht, a student from B.Sc. (Hons.) Biotechnology 3rd year. The presentation highlighted the concept of biorefineries and focused on the Assam Bio-Refinery project, which utilizes bamboo as a renewable biomass to produce second-generation ethanol. The speaker explained the major steps involved in the conversion of bamboo into biofuel, including pretreatment, enzymatic hydrolysis, fermentation, and purification. She also emphasized the advantages of bamboo as a sustainable feedstock and discussed how such technologies contribute to renewable energy production, Indian economy, environmental sustainability, and rural development. Furthermore, the speaker discussed the broader implications of biofuel technology in addressing climate change, energy security, and waste utilization as well as its alignment with the government's BioE3 policy. The presentation was informative and provided valuable insights into the role of biotechnology in promoting sustainable energy solutions.

Outcome:

The presentation encouraged students to explore innovative biotechnological solutions that promote sustainability and responsible use of natural resources.



Department of Biotechnology
St. Bede's College, Shimla

ST. BEDE'S COLLEGE
DEPARTMENT OF BIOTECHNOLOGY 


is Celebrating
NATIONAL SCIENCE DAY
Through a Talk on
ASSAM BIOREFINERY
A Green Energy Revolution in Northeast India
25th February, 2026

Venue: A12, Time: 11:00 AM

*From Bamboo to Biofuel,
Empowering a Sustainable Future!*

NEED FOR BIOETHANOL
Bioethanol is needed mainly due to:

- 1) To Reduce Pollution**
Fossil fuel produces carbon gas, leading to toxic air pollution.
- 2) To Reduce Oil Imports**
Ethanol is renewable and domestic. It can reduce fuel import costs.
- 3) Renewable Source**
Made from plants such as sugarcane, corn, and sorghum.
- 4) Supports Farmers**
Grows crops like sugarcane, corn, and sorghum, benefiting farmers.
- 5) Better Waste Utilization**
Converts crop waste (bagasse) into ethanol.

GPS Map Camera
Shimla, Himachal Pradesh, India 
Nav Bahar Directorate Road, Chotta Shimla, Shimla, Himachal Pradesh 171002, India
Lat 31.093883, Long 77.186476
Wednesday, 25/02/2026 11:09 am GMT+05:30
Note : Captured by GPS Map Camera



Department of Biotechnology
St. Bede's College, Shimla

Principle	Key Objective	Impact Area
Visionary Timeline	Achieve "Developed Nation" status by the centenary of independence: 2047.	National Identity & Global Stature
Economic Ambition	Transform India into a major global economic powerhouse (e.g., targeting a \$30 trillion economy).	GDP Growth, Manufacturing, Technology
Inclusive Growth	Ensure the benefits of development reach every citizen and region ("Sabka Saath, Sabka Vikas").	Social Justice, Poverty Eradication, Healthcare, Education
Empowerment Pillars	Focus on four key sections of society for rapid development: Youth, Poor, Women, and Farmers (Annamata).	Social Empowerment & Demographic Dividend
Sustainability	Prioritize Environmental Sustainability and Energy Transition (e.g., achieving Net-zero, promoting biofuels).	Climate Action, Energy, Green Economy

Shimla, Himachal Pradesh, India
Nav Bahar Directorate Road, Chotta Shimla, Shimla, Himachal Pradesh 171002, India
Lat 31.093883, Long 77.186475
Wednesday, 25/02/2026 11:11 am GMT+05:30
Note : Captured by GPS Map Camera



*Department of Biotechnology
St. Bede's College, Shimla*





Workshop on Composting in collaboration with UBA at Adopted Village

Date: March 30, 2026

Objectives:

- To sensitize the residents of Chaiwan village and the general public about the environmental and economic benefits of composting.
- To educate participants on the biological aspects of waste decomposition, specifically the vital role microorganisms play in the process.

The College UBA Cell, in collaboration with the Department of Biotechnology, organized a workshop on composting to raise awareness among the general public the residents of Chaiwan (an adopted village under the college UBA Cell) in the Dhalli Gram Panchayat, Shimla.

The resource person for the session was Dr. Shruti Gupta (Assistant Professor, Dept. of Biotechnology, St. Bede's College, Shimla). Dr. Gupta conducted an engaging session, interacting closely with the participants. She explained how to produce compost from kitchen waste and other organic plant matter, providing a step-by-step procedure for the process. The vital role of microorganisms in compost formation was also discussed.

Outcome:

- Residents were equipped to start their own composting units at home using easily available organic materials.
- A measurable decrease in the disposal of organic waste in open areas or public bins, leading to a cleaner village environment.
- The workshop strengthened the link between academic institutions (St. Bede's College) and the adopted village, fostering a culture of shared knowledge and environmental stewardship.



*Department of Biotechnology
St. Bede's College, Shimla*



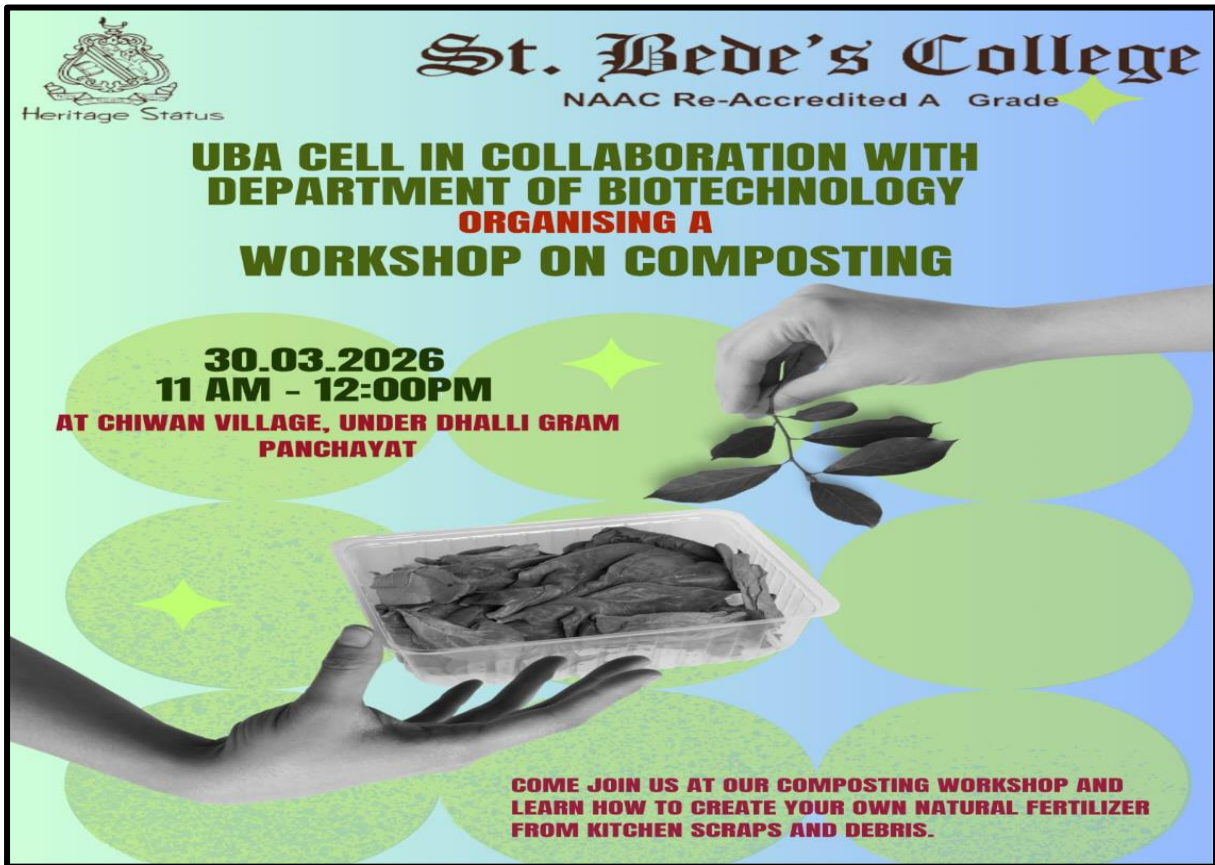



*Department of Biotechnology
St. Bede's College, Shimla*





*Department of Biotechnology
St. Bede's College, Shimla*




Heritage Status

St. Bede's College
NAAC Re-Accredited A Grade

**UBA CELL IN COLLABORATION WITH
DEPARTMENT OF BIOTECHNOLOGY
ORGANISING A
WORKSHOP ON COMPOSTING**

**30.03.2026
11 AM - 12:00PM
AT CHIWAN VILLAGE, UNDER DHALLI GRAM
PANCHAYAT**

**COME JOIN US AT OUR COMPOSTING WORKSHOP AND
LEARN HOW TO CREATE YOUR OWN NATURAL FERTILIZER
FROM KITCHEN SCRAPS AND DEBRIS.**