Dr. Ambedkar College Deekshabhoomi, Nagpur
Dept. of Botany

REPORT

"WORKSHOP ON WORKING PRINCIPLES OF ADVANCED BIOTECHNOLOGY INSTRUMENTS" 2024-2025

JOINTLY ORGANIZED BY

DEPARTMENT OF BOTANY AND DEPARTMENT OF BIOTECHNOLOGY

Departments of Botany and Biotechnology jointly organized a workshop titled **"Working Principles of Advanced Biotechnology Instruments"** for the **B.Sc. I Year students**, On the **21st of January 2025**. The event aimed to provide students with a foundational understanding of the principles and applications of biotechnology instruments. The workshop was held in the Biotechnology Lab, and enthusiastic participation from the students was witnessed.

Objective of the Workshop: The primary objective of the workshop was to introduce first-year undergraduate students to advanced instruments used in biotechnology research, bridging the gap between theoretical knowledge and practical applications. The workshop also aimed to spark curiosity and foster an interest in the field of biotechnology.

Inaugural Session: The workshop commenced with an inaugural session graced by the presence of the Resource person, **Dr. Pradip Hirapure,** and **Dr. Suresh Suryawanshi** a renowned biotechnologist. The Heads of the Departments and Esteemed faculty of Biotechnology and Botany **Dr. S. R. Somkuwar**, **Dr. Utpal Dongre**, **Dr. Rahul Kamble, and Mr. Labhesh Parteti** respectively, welcomed the participants and highlighted the importance of understanding biotechnology instruments at the undergraduate level.

Technical Sessions: The workshop was divided into two technical sessions:

Session 1: Overview of Advanced Biotechnology Instruments:

The first session provided an introduction to various advanced instruments commonly used in biotechnology labs, including:

- **Spectrophotometers**: Principles of UV-Vis and fluorescence spectrophotometry.
- **Centrifuges**: Applications of ultracentrifugation in molecular biology.
- **Polymerase Chain Reaction (PCR) Machines**: Real-time PCR and its applications.
- **Gel Electrophoresis Systems**: Techniques for DNA and protein analysis.

The session was conducted by **Dr. Pradip Hirapure,** and **Dr. Suresh Suryawanshi**, an expert in molecular biology, who explained the working principles and troubleshooting techniques for these instruments.

Session 2: Hands-On Training:

The second session focused on hands-on training, where students were divided into smaller groups for practical demonstrations. The instruments covered during the session included:

- **Spectrophotometers**: Principles of UV-Vis and fluorescence spectrophotometry.
- **Centrifuges**: Applications of ultracentrifugation in molecular biology.
- **Polymerase Chain Reaction (PCR) Machines**: Real-time PCR and its applications.
- **Gel Electrophoresis Systems**: Techniques for DNA and protein analysis.

Experienced Resource Person guided the students, ensuring they gained practical insights into the operation and maintenance of these instruments.

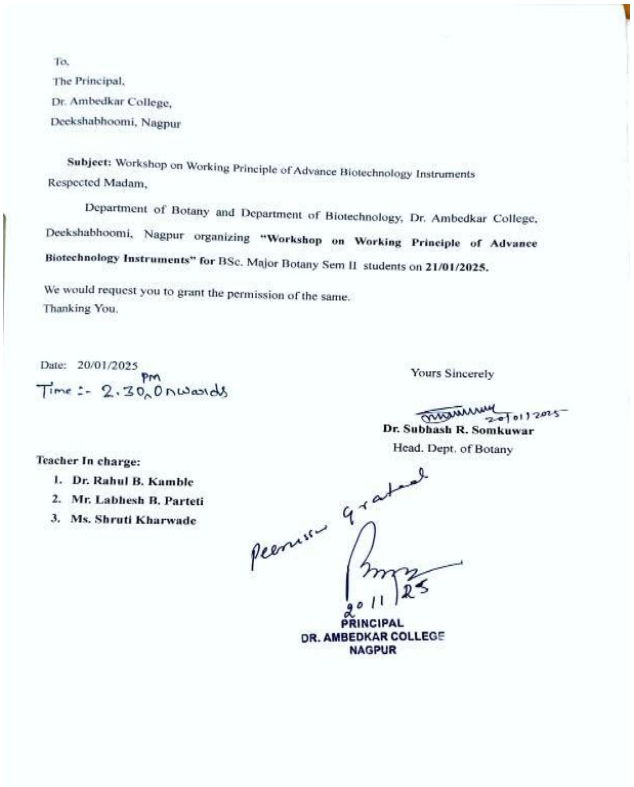
Interactive Q&A and Feedback:

The workshop concluded with an interactive Q&A session where students had the opportunity to clarify their doubts and discuss potential applications of the instruments in their academic projects. Feedback forms were distributed, and participants expressed their appreciation for the comprehensive coverage and practical approach of the workshop.

Conclusion:

The workshop on **"Working Principles of Advanced Biotechnology Instruments"** was a resounding success. It not only enriched the knowledge of first-year students but also provided them with valuable hands-on experience. The collaborative efforts of the Departments of Botany and Biotechnology were highly appreciated, and the event served as a platform for fostering curiosity and foundational learning.

The organizers expressed their gratitude to the resource persons, students, and supporting staff for making the event a memorable and educational experience. Plans for similar workshops and training sessions were also discussed, aiming to continue the tradition of academic excellence and skill development.



To,
The Principal,
Dr. Ambedkar College,
Deekshabhoomi, Nagpur

Subject: Workshop on Working Principle of Advance Biotechnology Instruments

Respected Madam,

Department of Botany and Department of Biotechnology, Dr. Ambedkar College, Deekshabhoomi, Nagpur organizing **"Workshop on Working Principle of Advance Biotechnology Instruments"** for BSc. Major Botany Sem II students on **21/01/2025.**

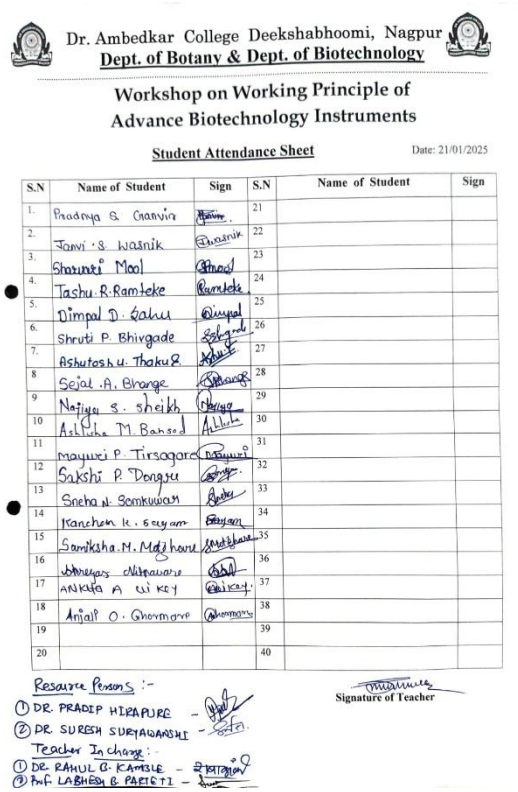
We would request you to grant the permission of the same.
Thanking You.

Date: 20/01/2025
Time :- 2.30 pm onwards

Yours Sincerely
20/01/2025
Dr. Subhash R. Somkuwar
Head. Dept. of Botany

Teacher In charge:
1. Dr. Rahul B. Kamble
2. Mr. Labhesh B. Parteti
3. Ms. Shruti Kharwade

Permission Granted
20/01/25
PRINCIPAL
DR. AMBEDKAR COLLEGE
NAGPUR



Dr. Ambedkar College Deekshabhoomi, Nagpur
Dept. of Botany & Dept. of Biotechnology

Workshop on Working Principle of Advance Biotechnology Instruments

Student Attendance Sheet

Date: 21/01/2025

S.N	Name of Student	Sign	S.N	Name of Student	Sign
1.	Pradnya S. Chanvir		21		
2.	Janvi S. Wasnik		22		
3.	Shrunkti Mool		23		
4.	Tashu R. Ramteke		24		
5.	Dimpal D. Sahu		25		
6.	Shruti P. Bhivgade		26		
7.	Ashutosh U. Thakur		27		
8	Sejal A. Bhange		28		
9	Nafiya S. Sheikh		29		
10	Ashlesha M. Bansod		30		
11	Mayuri P. Tirsagare		31		
12	Sakshi P. Dongre		32		
13	Sneha N. Somkuwar		33		
14	Kanchan K. Bagam		34		
15	Samiksha M. Majhare		35		
16	Shreyas Chitnavare		36		
17	ANKITA A KEY		37		
18	Anjali O. Ghormare		38		
19			39		
20			40		

Signature of Teacher

Resource Persons :-
1. DR. PRADIP HIRAPURE
2. DR. SURESH SURYAWANSHI

Teacher In charge :
1. DR. RAHUL B. KAMBLE
2. Prof. LABHESH B. PARETTI

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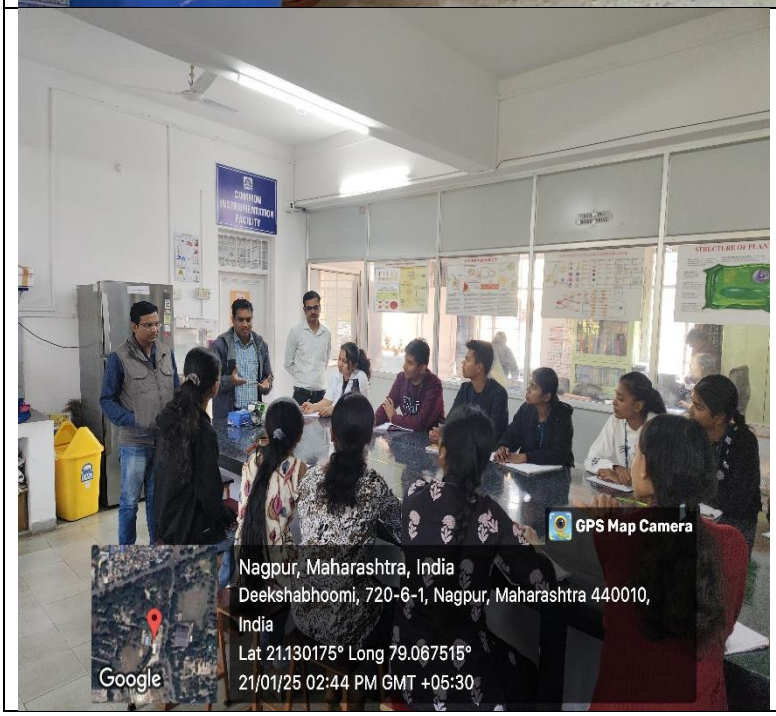

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