

**A Brief Report on
GSBTM Sponsored Crash Course at C. G. Bhakta Institute of
Biotechnology, Uka Tarsadia University (UTU), Bardoli
(20th-31st December, 2022)**

Co-ordinator: Dr. Gopal Jee Gopal

Gopal Jee Gopal

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Bardoli- Mahuva Road, Tarsadi-394350
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Participating Students' list

Sr. no.	College name	No. of students
1	Sheth P. T. Mahila college of Arts and Home science	6
2	Shree Ramkrishna Institute, Surat	9
3	Department of Biotechnology, VNSGU	13
4	Government science college, Valod	6
5	Government science college, Vankal	10
6	Naranlala college of profession & Applied Science, Navsari	14
7	P.P Savani University, Navsari	10
8	Department of Microbiology, C.G Bhakta Institute of Biotechnology, UTU, Bardoli	5
9	Department of Biotechnology, C.G Bhakta Institute of Biotechnology, UTU, Bardoli	10
10	Art Science and Commerce college, Kholwad	6
11	J.N.M. Patel College, Surat	5

A Brief Report on GSBTM Crash Course

The Gujarat State Biotechnology Mission (GSBTM) conducted a crash course at the C. G. Bhakta Institute of Biotechnology, Uka Tarsadia University (UTU), Bardoli, to prepare students for national-level competitive exams to secure admission into Indian research institutes and various reputed universities to pursue masters in Lifescience. The 12 Days crash course took place from December 20th to 31st and 94 students from 11 different institutes participated in this crash course. The course aimed to provide a competitive learning atmosphere to the participants, and lectures were delivered by renowned speakers from various fields of lifescience. Around 35 expert faculties from reputed institutions and few from host department (C. G. Bhakta Institute of Biotechnology, UTU) delivered detail lectures on potent topics (with exam point of view) in order to prepare student in advance for national level competitive exam.

Dr. Gopal Jee Gopal was the course coordinator, and Dr. N Srivathsa was the co-coordinator of this crash course. The crash course begins with Dr. Gopal Jee Gopal, Co-ordinator of the event who welcomes all the guests, speakers and participants and in brief tell about need of this crash course. Honorable provost of Uka Tarsadia University (UTU), Bardoli Dr. Dinesh R. Shah and our Respected Prof. Krishnamurthy bless the inauguration function with their inspirational words of experience in a very lucid manner.



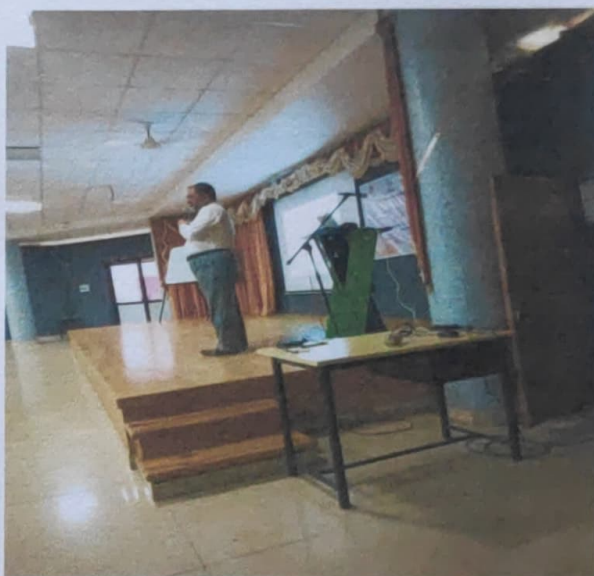
Day 1 (20th December, 2022)

The session started with Prof. G. Naresh Kumar, Principal of CVM introducing the topic on metabolism, followed by Prof. Archana G from MSU, Baroda discussing on enzymes and their applications. Dr. Paresh Patel spoke on the concept of buffer solutions and pH, and Dr. Gopal Jee

Gopal gave a talk on Chemistry and mathematics for biologist. Overall, the first day of the crash course seemed to provide an interesting mix of topics and speakers from diverse backgrounds.

Day 2 (21st December, 2022)

On the second day of the event featured four resource persons from different universities discussing various topics. The event began with a talk by Dr. Gopal Jee Gopal who continued his discussion on chemistry and mathematics for biologists. This was followed by a lecture on mutations and mutagens by Dr. Jay Bergi from Shri Ram Krishna Institute, Surat. Dr. Ratna Trivedi, HOD Dept. Of Environmental Science of SRKI, spoke about ecology, while Dr. N. Ch. Srivathsa from Uka Tarsadia University talked about foreign education and abroad opportunities. The day concluded with a talk on photon energy by Dr. Jaymin Ray from the Department of Physics, UTU, Bardoli.



Day 3 (22nd December, 2022)

Day 3 was packed with various topics related to genetics and molecular biology. Mohit Mantri Ph.D. student from IISER Pune (also student from 1st batch of GSBTM Crash Course) spoke about genome structure, chromatin, and nucleosome. He discussed the different levels of organization of the genome, including DNA packaging in chromatin, and the role of nucleosomes in regulating gene expression. Dr. Nishant S. Junnarkar, HOD of the Department of Microbiology at Government Science College, Vankal, presented on transcription and translation. Dr. Anil Singh, Assistant Professor at Government Science College, Vankal, Surat, discussed the regulation of gene expression. Finally, Dr. Gopal Jee Gopal continued on his lecture on Chemistry and Mathematics for biologist.

Day 4 (23rd December, 2022)

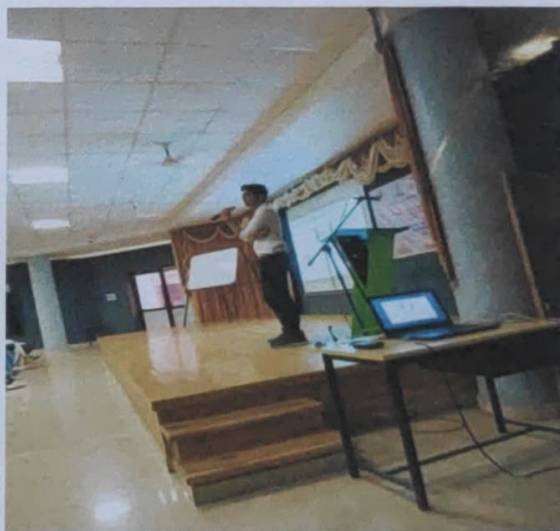
On Day 4, several experts from different colleges in Gujarat discussed on various topics. Dr. Darshan Marzadi from SRKI, Surat spoke about fermentation, while Dr. Raktim Mukherjee from Shree P.M. Patel Institute in Anand discussed the complementary system. Dr. Mansi Mehta from VNSGU spoke about chromosomal disorders. In the last session of the day Dr. Sachin Kumar, an assistant professor at TICS UTU Bardoli, delivered lecture on photochemistry.

Day 5 (24th December, 2022)

On December 24th, 2022, the fifth day of the event, Dr. Mukesh Patel, an assistant professor at the Department of Mathematics at UTU Bardoli, discussed on probability. Dr. Gopal Jee Gopal, the coordinator of the crash course spoke about Polymerase Chain Reaction and its applications. Dr. Chintan R. Patel, an assistant professor at TICS, Uka Tarsadia University in Bardoli, presented on chemical bonding. Dr. Meonis Pithawala, an assistant professor at Uka Tarsadia University in Bardoli, discussed the topic of microscope and microscopy. Finally, Dr. Paresh N. Patel, the I/C Director of the Department of Chemistry at TICS, Uka Tarsadia University in Bardoli, presented on the topic of spectroscopy.

Day 6 (25th December, 2022)

Dr. Gopal Jee Gopal, the coordinator of the crash course started day 6 with his topic on recombinant DNA technology. He described in a very simple manner how the development in this field is useful to mankind and several key points of that subject. After that Suraj Shukla Research Scholar MSU, Baroda delivered lectures on host parasite interaction. Dr. Kaushal Mehta assistant professor L.J Institute of Applied Science, Ahmedabad spoke about structure of biomolecule. In this he explained about the structure of lipids and proteins. In the last session of the day Dr. Gopal Jee Gopal continued with his topic on recombinant DNA technology.



Day 7 (26th December, 2022)

On day 7 the event started with Dr. Sanket Ray Assistant Professor from Naranlala College, Navsari delivered lecture on Cellular Organelles. After that Dr. Mukund Chandra Thakur delivered a detail talk on Plant Morphology an important topic on exam point of view. Prof. Rajashekhar Ingalhali delivered a lecture on diverse aspects of plant physiology and morphology. Dr. Meonis Pithawala made a presentation on microscopy, a very important tool in biological research in a very simple manner and taking care of all scientific concept and terms associated with microscopy, types of microscope etc. Finally, Dr. Gopal Jee Gopal continued with Recombinant DNA Technology lectures.

Day 8 (27th December, 2022)

Dr. Gopal Jee Gopal, coordinator of the crash course continued with his lecture on recombinant DNA technology. Dr. Akhilesh Prajapati, assistant professor from GSFC University delivered lecture on two very important biomolecules i.e. lipids and carbohydrates with respect to structural and functional aspects. Dr. Saroj Shekhawat, assistant professor also from GSFC University spoke about enzyme kinetics. Dr. Deepesh Bhatt, assistant professor, Sarvajani University explained in detail about photosynthesis which is again a very important topic exam point of view. Dr. Bhavin Bhatt talks on Genetics and Inheritance Biology.

Day 9 (28th December, 2022)

Dr. Nafisa Patel, HOD Department of Microbiology, Naranlala College, Navsari delivered a detail talk on protein trafficking and the translation pathway. Jaya Jain talks on Endocrine system. Dr. Sumit Kumar Panja take this opportunity to present his lectures on Fundamental and Application Perspective of Thermodynamics. Dr. Ashish Warghane on Viruses and Dr. Bhavika Mehta (Previous batch participants) who has cleared CSIR-NET-JRF, ICMR, NET_JRF gives a detailed talk on Cell Cycle, Cell Signaling and Cell Communication.

Day 10 (29th December, 2022)

Day 10 started with Dr. Abhitosh Kedia who talks about Forces and Projectile Motion. Dr. Sanjay Parekh discussed with students on bacterial taxonomy. Dr. Rasik Shah on Trigonometric Functions. Dr. Mitesh Kumar Dwivedi gave a detailed lecture on Antigen Processing and Antigen Presentation. Dr. Dharmesh Chejara delivered lecture on Statistics and Chemometrics for Analytical Chemistry. Finally, the day ended with mock test for the students.

Day 11 (30th December, 2022)

Day 11 was packed with diversity of academic points such as Immunological Techniques: Principle & Application (Dr. Gaurav Shah), Dr. Pravin Dudhagara (Fundamental and Application of Bioinformatics), Dr. Bhavika Tailor (Determinant, Matrix and System of Linear Equations). Dr. Rushabh Shah and Dr. Ravi Vijayvargiya discussed on bacterial growth and protein purification respectively. Mock test was conducted at the end of day.



Day 12 (31st December, 2022)

On the last day of the crash course Dr. Amrutlal Prajapati delivered lecture on Overview on Intellectual Property Rights (IPRs). Dr. Mitesh Kumar Dwivedi discussed with students on Antibody Structure & Antibody Diversity: Genetics of Antibody. A final mock test was conducted for the students on the last day of crash course by Dr. Gopal Jee Gopal.



Valedictory Ceremony

On the last session of last day, a visit to different department of Uka Tarsadia University was arranged to give student glimpses of variety of departments and courses offered in the university campus. The valedictory function was happened in auspicious presence of Honorable provost Dr. Dinesh R. Shah, Prof. Krishnamurthy (Director,CGBIBT) and senior faculty members of CGBIBT Dr. Meonis Pithawala, Prof. Rajashekhar Ingalhalli as well as several junior faculty members. Students share their experiences after participating in this crash course. The ceremony included the distribution of certificates and all the study material is provided to the students for future reference purpose. Here is the youtube link of feedback shared by students: <https://youtu.be/3foLwLdnBdQ>



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