

Title of Practice:

Capacity Building Program- BTCBC (Biotechnology Capacity Building) Crash Workshop

The context that required the initiation of the practice:

In dynamic and constantly growing field of science and technology, the key to success lies in constant updating of knowledge and keeping pace with new trends and technologies. For seeking admission in post graduate programs in reputed national institutes, students need to crack various competitive exams. The Gujarat State Biotechnology Mission [GSBTM], formed under the aegis of Department of Science and Technology, Government of Gujarat, has significantly contributed in development of an Institutional Network for Capacity Building Cells [N-BT-CBCs] in the field of Biotechnology. The State Government has strategized formation of 14 Capacity Building Cells in Biotechnology [BT-CBCs] at various academic organizations of the state. The CBC would address the specific needs of students preparing for competitive exams by providing focused preparation, expert guidance, access to resources, practical experience through mock tests. The CBC would become a cornerstone for academic institutions, ensuring that faculty, researchers, and students remain at the forefront of knowledge and skill development.

Department of Biotechnology, Pramukh Swami Science and H.D.Patel Arts College has been selected as Regional Centre for Biotechnology Capacity Building Cell (under N-BT-CBC) by the State Government. With the financial support from GSBTM, Capacity Building programs are organized including structured Crash Workshops. The Crash Workshops are organized for preparing students to crack various state and National Competitive Examinations for Admission to Post-Graduate Program. The workshop is envisaged to be a residential training enabling ample time for the students to work with trainers.

Objectives of the practice:

- To prepare students to crack various State and National level Post Graduate entrance examination
- Competency Development amongst the students for critical thinking and analysis

The practice:

Awareness among the North Gujarat Region Cluster colleges :

The awareness for the BT CBC workshop conducted at our college is carried out by conducting orientation programs in various other institute of North Gujarat region as well as use of social media to make students aware regarding the availability of capacity Building program for cracking competitive exams.

Selection of Students:

The selection process for students interested in participating in BT CBC program is done by inviting the applications from students studying in the final year of graduation of various colleges falling in North Gujarat Area (N-BT-CBC Kadi Cluster). The selection of students is carried out through screening test.

Initially from 2009 to 2015, the crash workshop was organized only for Final year students pursuing their study with Biotechnology, Microbiology or Biochemistry as specialization. Later in 2015, two separate training programs were conducted for the students of second year and third year separately. Later on since 2021 and during COVID pandemic the workshop was conducted in online mode of GUJ e BT Lecture series. Since 2022 offline training has again resumed for only final year students.

Organization of Crash Workshops:

The Crash Workshops are an intensive period of training with some of the best available resource persons. Total 120 hours training (11 hours / day) is provided to selected students in an academic year. The workshop organized is residential as it includes 11 hours' intensive period of learning each day. The resource persons are invited from across the state to train the students. The resource persons are invited based on their expertise in various domains. During 120hrs of training more than 80hrs of training is provided by external experts invited by the college as resource person. The workshop is designed to cover important topics in subjects viz, Maths, Chemistry, Physics, Biotechnology, Biochemistry, Microbiology etc. Additionally, motivational session, psychological orientation sessions are conducted during the workshop. The mock test is also conducted every day at end of all session. An online mock test is also organized before the actual competitive exam for benefit of students. For the mock test questions are invited from all experts. The question papers of mock test conducted at BT CBC crash workshop from other 13 centers are also shared to students to improve their ability to crack questions. During the tenure of workshop, boarding as well as lodging facilities are provided by college. The study material in form of books, Question papers as well as PPT are also provided to students

Since 2009, the college has organized 15 such crash-workshops to train students for Post Graduate Entrance Examination. During Covid pandemic the college organized GUJ e Bt Lecture series online and crash workshop in online mode.

Academic Year	Date and Duration of Capacity Building Program	Students from No. of Colleges Participated	No. of Student Participants	No. of Resource Persons invited	Outcome of the program. (Students Cracked Post Graduate Entrance Examination of Various National and State Universities)
2023-24	January 16 – February 3 2024	3	T.Y 60	49	2 students cracked GAT B exam with All India ranks Ayushi Padia:83 Thakor Anand :125 1 student Ayushi Padia cracked IIT JAM with All India Rank 1209 45 –students cracked PG Entrance Exams in various state universities
2021-22	1-30 October 21	Online E BT lecture series open to all	Online E BT lecture series open to all	12	Online e BT lecture series 56 students got admission in various state and National level Institutes for PG studies.

2020-21	15-25 March 2021	13	S.Y 157 T.Y 219	11	60- students cracked PG Entrance Exams in various state universities
2019-20	04-16 February 2020	7	S.Y.- 91 T.Y.- 80	66	IIAR– 2 23- students cracked PG Entrance Exams in various state universities
2018-19	15-22 December 2018	8	S.Y.-120 T.Y.-120	46	48- students cracked PG Entrance Exams in various state universities
2017-18	2-9 December 2017	8	S.Y.-78 T.Y.-98	46	60- students cracked PG Entrance Exams in various state universities
2016-17	4-9 May 2017	8	S.Y.-38 T.Y.-68	45	4 Students has cracked JNU- CBEE examination with following Rank: Nisha Chandak IIT Jam AIR 180 JNU AIR 279 60- students cracked PG Entrance Exams in various state universities
2015-16	5-10 May 2016	8	S.Y.-38 T.Y.-88	46	4 Students has cracked JNU- CBEE examination with following Rank: <ul style="list-style-type: none"> • Shah Maulik Mahendrabhai (JNU AIR 58) • Chaudhari Minalben Bhagirathbhai (JNU AIR 286) • Chaudhary Paru Hirabhai (JNU AIR 309) 50- students cracked PG Entrance Exams in various state universities
2014-15	7-12 May 2015	7	S.Y-32 T.Y.-34	44	4 Students has cracked JNU- CBEE examination with following Rank: <ul style="list-style-type: none"> • Nancy N Bagariya (JNU AIR 432) • Makwana Mittal Suresh (JNU AIR 494) • Patel Krunal R (JNU AIR 1180) • Zalak Ashokbhai Patel (JNU AIR 1237) 26- students cracked PG Entrance Exams in various state universities
2013-14	5-10 May 2014	7	T.Y 44	44	37- students cracked PG Entrance Exams in various state universities

2011-12	14-19 November 2011	7	T.Y 37	27	24- students cracked PG Entrance Exams in various state universities
2010-11	25-27, February 2010	7	T.Y 46	30	11- students cracked PG Entrance Exams in various state universities
	April 30- May 3, 2010	5	T.Y 41	35	
	10-12 May 2012	3	T.Y 19	20	
2009-10	3-8, May 2010	7	T.Y 70	21	13- students cracked PG Entrance Exams in various state universities

Obstacles faced if any and strategies adopted to overcome:

Obstacles	Strategy adopted to overcome
Organization of Residential Workshop as it includes 11 hours / day academic training	Organization of event after college exam so we can accommodate students in hostel.
Having Consent of resource persons from various state and national level universities and organizations as more than 40 resource persons are needed to provide intensive training to students.	Institute maintains liaison with resource persons and with their advance consent, the sessions are organized. However, if any expert deny to come at last time, sessions are managed by experience faculties of the institute.
Convincing students to participate and attend sessions for 11hrs / Day	Priming and mentoring of students before workshop Inviting successful alumni to share their success story. Organizing motivational sessions during crash workshop Organizing fun games and activities after session

Impact of practice

- In the current year 2 students cleared GAT-Bb and 1 student cleared IIT JAM. One of the students got admission in Gujarat Biotechnology University for pursuing M.Sc and will be getting stipend of Rs 5000/- per month.
- After attending Capacity Building program, students are found to be conceptually very clear as they have learning exposure from eminent academic experts of various universities and institutes from state and nation.
- The student's competency is enhanced to appear and crack various entrance examination.
- Students who get PG admission through JNU CEEB, they get Rs. 80000/- per year stipend during their post graduate Studies.
- The crash workshop improves networking with researches from multiple disciplines and provides

ample opportunities to collaborate with experts for research, training and capacity building events.

- The students benefit for interacting with their fellow students from other institutes. The students also develop resilience and patience as crash workshop is intensive training.
- Institute mobilized financial support of Rs. 1460329/- during last 5 years for organization of the Crash workshops from GSBTM, Government of Gujarat

Resources required

- Manpower
- Accommodation facilities
- Resource Persons
- ICT enabled Classrooms for conducting sessions.