

ST. XAVIER'S COLLEGE (AUTONOMOUS)

Re-accredited with 'A+' (CGPA 3.27 out of 4) by NAAC (4th Cycle) | Affiliated to Gujarat University

Best Practice 1

Title: Advanced B Sc (Physics) Program 2023: A Unique Summer Program

Objectives:

Amongst the students who opt for doing a Bachelor's in Science there are a few who are very motivated and would like to challenge themselves.

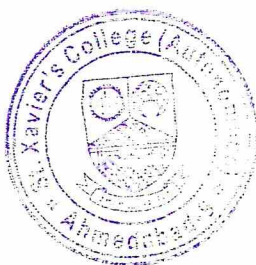
The aim of the Advanced B.Sc. Programme in Physics is to provide such students with an enhanced B.Sc. curriculum that can be challenging, interesting and inspiring leading them to crack competitive examinations. Something which is not possible in a typical class room environment due to the presence of students with different learning handicaps.

The Context:

The Advanced B. Sc (Physics) Programme was started by the joint efforts of St. Xavier's College Ahmedabad (SXCA), Gujarat Science Academy and Vikram A. Sarabhai Community Science Centre (VASCSC), Ahmedabad in 2003 under the guidance of experts from Institute for Plasma Research (IPR), Physical Research Laboratory (PRL), Indian Space Research Organisation (ISRO). This is a very unique model where Research Institutes, Academic institutes, Govt. organisation and Community service institutes come together to roll out a program.

Best Practice:

The Advanced B.Sc. (Physics) programme is an approximately 3-week summer residential programme for motivated B.Sc. students across the Gujarat. The lectures are designed to be interactive and are followed by tutorials in which problems are discussed. They get hands on experience too in labs where the mode of delivery is experimental form of learning. This program has demonstrated that if the Research institutes, educational institutes, NGO's and Govt bodies work together, the synergy can result in something very creative and effective. Imagine an Astronomer teaching students the intricacies of Sky gazing, a researcher giving his perspective about the relevance of the subject and so on. The entire environment is so encouraging for the students that they are so inspired and majority of them want to choose Research as their career.



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Evidence of Success:

Several past students of the programme have performed well after participating in the programme. Some students have joined M.Sc. and PhD programmes at prestigious institutions in India and abroad such as IIT Madras/Bombay/Delhi, IMSc (Chennai), IISER Kolkata/Bhopal, Pune University, State University of New York at Stony Brook, University of Delaware, University of Kwa-Zulu Natal, S. Africa, National Central University, Taiwan. Some others have joined scientific organizations such as IPR, PRL, Gujarat Science City and VASCSC as employees, science educators or project associates.

Problem Encountered:

This program is very well designed and running since 2003, funds and availabilities for hostels are the issues to be handled sometimes.

Best Practice 2

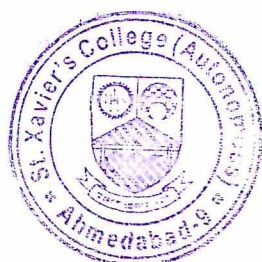
Title: Teaching Internship Program

Objectives:

- To Give Internship Opportunity to students who want to pursue Teaching as their Career
- Develop the Skills of Communication, presentation and public speaking

The Context:

A Unique initiative to cater to students who want to pursue a career in Academics as well as share our expertise with School students A need to share the expertise of our students with school students was developed and such collaboration with school develops an inclination to the interning students towards career in teaching and public speaking. Our strategy was to sign MOU with a reputed School and have a chalk out a program which benefits both the school and the interning students.



Best Practice:

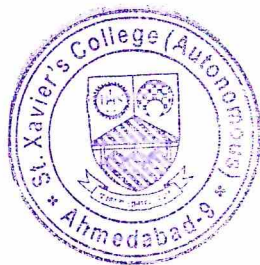
The college students who have inclination towards career in Academics are selected through a rigorous selection process to take up the teaching internship for 6 months. This teaching internship is carefully designed to enhance the skills of physics for 10th and 12th subjects at Zydus school Godhavi under an MoU with the school. In this program, students are given teaching assignments to teach selected topics and at the completion of the internship, certificates are issued and then later it was also extended to give credits to students in their elective papers. They are also mentored by our staff before they start their internship. The challenge before the student is to give a totally different angle than the conventionally existing style of teaching, which has more emphasis on the practical application of the topic taught.


Evidence of Success:

College students could develop teaching skills and pursue teaching after their studies. The meticulous planning and preparation involved also developed their referencing as well as research skills. Many students got offer letters from different schools immediately after finishing their post-graduation based on the teaching experience. The self-confidence of the students while facing an audience was boosted up and it helps them in whatever career, they pursue.

Problem Encountered:

The coordination and repo building with the working staff of the school had been always a challenging task for the college students. Setting a convenient Time Table was a challenge which suited both the College and the School.




Principal
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