

BEST PRACTICE 1:

1. Title of the Practice

Freeships and Fee Concession

2. Objectives of the Practice

- ❖ To achieve the objectives of the right to education, which is also a fundamental right in the Indian Constitution. Though it is mandatory only up to 14 years of age but generally right to education is considered a human right and much required in higher education also. Even the vision of the founder members of this institution was to provide affordable education to the maximum number of students.
- ❖ To cater to the needs of economically weak but meritorious and deserving students, especially from rural background and socially weaker sections including girls.

3. The Context:

This institution was set up in 1956 with the sole motive of providing quality education in the backward Malwa belt. The vision of our founder members, Dr. Raghbir Prakash Ji and Pandit Anand Sarupji was that no student who deserve higher education should be deprived of the same due to lack of resources. This institution has been imparting quality education for the last six decades. During this long academic journey, the institute has proved to be an oasis of knowledge in barren stretch of illiteracy. Students especially from rural background come to this institute with quest for learning and shaping their future. The main aim of this institute is of holistic development of students so that they can positively contribute to the progress of the nation. Along with the prescribed syllabi the institute also provides value based moral education.

4. The Practice:

The institute is situated in a backward area where the problems of female foeticide and gender bias prevail. The female students are deprived of good education either because the parents are not capable or they are not willing to spend money on the education of daughters. So, this practice of providing free education, free books and fee concession to students was started by founder members in early years of inception of this college. Keeping these aspects in mind economically weak students especially girl students are given support by the college. In this way college is working towards women empowerment also.

Without any partiality, students are asked to give applications for fee concession at the time they fill their admission forms. At that time, they are advised to fill only the university dues. The students who apply for fee concession are called along with their parents for a meeting on a fixed date. Members of the Managing committee and the Principal take decision regarding the financial help for the deserving students. The amount of the monetary help is also decided by them. After that, students' performance and attendance is continuously monitored.

Data of college fee concession offered to needy students

Session	No. of Boys	No. of Girls	Total Students	Amount(Rs.)
2012-13	128	219	347	1313085
2013-14	154	282	436	1776155
2014-15	173	293	466	1250435

2015-16	280	345	625	3004620
2016-17	178	241	419	3574910
2017-18	175	234	409	3130600
2018-19	137	192	329	2177050
2019-20	125	131	256	1671400
2020-21(Covid pandemic period)	21	25	46	250680
2021-22	78	89	167	1132837
2022-23	80	95	175	1256067

5. Evidence of Success:

The students who availed this facility have secured top positions in the University Merit List. Many of them got government jobs. The list of some of the students is given below:

Name of Student	Course	Achievement
Harpal Singh	M.A.(English)	Revenue Patwari (Govt. Job)
Gurpreet Sigh	B.A.	Punjab Police (Govt. Job)
Manpreet Kaur	B.A.	Police Constable (Govt. Job)
Neetu Kaur	B.A.	Police Constable (Govt. Job)
Jasvir Kaur	M.A. (English)	Police Constable (Govt. Job)
Monika Rani	B.A.	Stood first in University in B.A.-I, B.A.-II and third in B.A.-III
Rahul Singh	B.A.	Clerk Court Complex Barnala
Jaswinder Kaur	M.A.(English)	English Mistress, Education Dept.Punjab
Namarata	B.Com	Asst. Prof.Bhikhi College
Simranjit Kaur	B.Com	Clerk DC Office
Simarjeet Kaur	B.A.	Teacher, Chananwal
Sukhwinder Kaur	B.A.	Computer Operator in Sewa Kendra Barnala

The list is very long and it is not possible to mention all names so here we are mentioning just few ones.

6. Problems Encountered and Resources Required:

The aim of our college is to help the students to the best of its ability. However, because of less posts covered under Grant in Aid scheme, our institute has to arrange teachers of its own. Chunk of funds is used to pay the salary of these faculty members. As most of the students in our college belong to rural background and have less paying capacity therefore our institute faces the problem of shortage of funds. Our college started B.Voc courses and has spent a huge amount upon the infrastructure required to run these courses. However our college has not received any grant from the UGC till now. Under Punjab Govt.'s Post- Metric Scholarship Scheme for SC students aid of more than one crore rupees against this scheme is still pending with Punjab Govt. Covid pandemic has further aggravated the problem of scarcity of funds.

BEST PRACTICE 2:

Title: Establishment of Goswami Ganesh Dutt Innovation Hub in the Department of Physics

Objective of practice:

1. To enhance creativity and experimental skills in education of basic science.
2. To impart hands on experience to students.
3. To help the students formulate their own ideas.
4. To develop critical analytical skills among students.
5. To help students understand inter relationship between science and technology and among various disciplines of science.
6. To develop an outlook of curiosity, risk taking, objectivity, precision, confidence, perseverance and responsibility among students.

Context:

Our Institute was set up in 1956 with the sole motive of catering the needs of the people of Malwa belt by providing quality education. The students from nearby villages prefer our college for education. It has been observed that students were lacking skills of handling equipments required for performing experiments of basic science. This is due to a lack of such equipments and paucity of teachers in the schools. The thrust of our college is to inculcate an interest of basic science among students so that India can take a lead in the progress of science and technology with an aim to fulfill such objectives the Department of Physics, S D College, Barnala in association with Indian Association of Physics Teachers (IAPT) established, Goswami Ganesh Dutt Innovation Hub on 26th October 2021.

Practice:

1. The students of science stream of nearby schools students are motivated to utilize the Innovation Hub and perform various experiments based on different physical phenomenon.
2. In this Innovation Hub, 24 different working models are displayed such as Harmonic Oscillator set up, an angular Momentum Conservation set up, Electromagnetic Induction and Faraday's Law set up, Bohr Orbits demonstration set up, Doppler Effect set up, Vortex formation set up, Eddy currents set up, Lorentz Oscillator set up, Experiment on Stationary wave set up, Raman Effect demonstration set up, Motion on an Inclined Plane set up, Magnetically Coupled Oscillator set up, Mechanical Transmission Line set up, Reduction of Friction set up, Newton's Cradle set up, Series of Pendulum set up, Potential Well set up, Vibration Analysis of a System set up, Melde's Experiment set up, Atomic configurations through the floating magnetic dipoles set up, Air Cannon set up, Science of a Flame set up, and an Electroscope set up.
3. The faculty of the department continuously make continuous efforts to inculcate a research aptitude among students by encouraging them to read research journals. The department has subscription of two journals namely '**Current Science**' and '**Resonance**' published by the Indian Academy of Sciences. At least, one teacher of the department ensures his presence in the Hub during college working hours.
4. Besides these subscribed journals, the students also explore online journals. The students study the research article under the able guidance of teachers and get acquainted with various innovations in the field of Physics. They are motivated to pursue higher studies as well as research in Physics.

Evidence of success:

1. After getting motivated from this practice, one of our students Mr. Nikhil Kumar, during his final year of graduation, presented a poster under the Supervision of Dr. Sanjay Kumar Singh at the 'Autumn School 'in Germany on the topic of 'Correlated Electrons: Dynamical Mean-Field Theory of Correlated Electrons' (Oct 04 – 07, 2022) organised by Forschungs zentrum Jülich, Germany. Similarly, Shifa Gupta and Khushpreet Kaur of B.Sc-III (Non-Medical) and Toshar Garg and Krishan Kumar of B.Sc-II (Non-Medical) participated in 26th Punjab Science Congress, a National Conference on “ Environment , Food Security and Health with reference to Climate Change” organized by Sri Guru Granth Sahib World University under the aegis of Punjab science Academy, Patiala from 7th to 9th Feb.2023.
2. In continuation with this, about 30-50 Students of B.Sc I, II III (Non-Medical) participated in national level test “National Graduation Physics Examination” (NGPE) organized by the Indian Association of Physics Teachers (IAPT) every year. Dr. Manoj Kumar Gupta is the Centre In-charge of this examination in the college. After clearing this test, students get an opportunity to attend various summer training program / internships and can avail scholarships to pursue higher studies in Physics from renowned Indian research institutes like ISRO, BARC, HBCSE, TIFR etc. This year, one of our BSc I Non-Medical student Manjeet Kaur cleared this test with top position in north zone and attended summer training program at Homi Bhabha Centre for Science Education (HBCSE) from 5th July 2023 to 17th July 2023.

Problems faced:

The faculty of the department visited about fifteen nearby government schools and interacted with Principals, science teachers as well as students to aware them about various demonstration models pertaining to various physical phenomenon and laws available in this Hub and invited them to visit the Hub along with their students. However, most of school heads expressed their inability to send their students to Innovation Hub due to lack of directions from Education department and non-availability of transport facility.



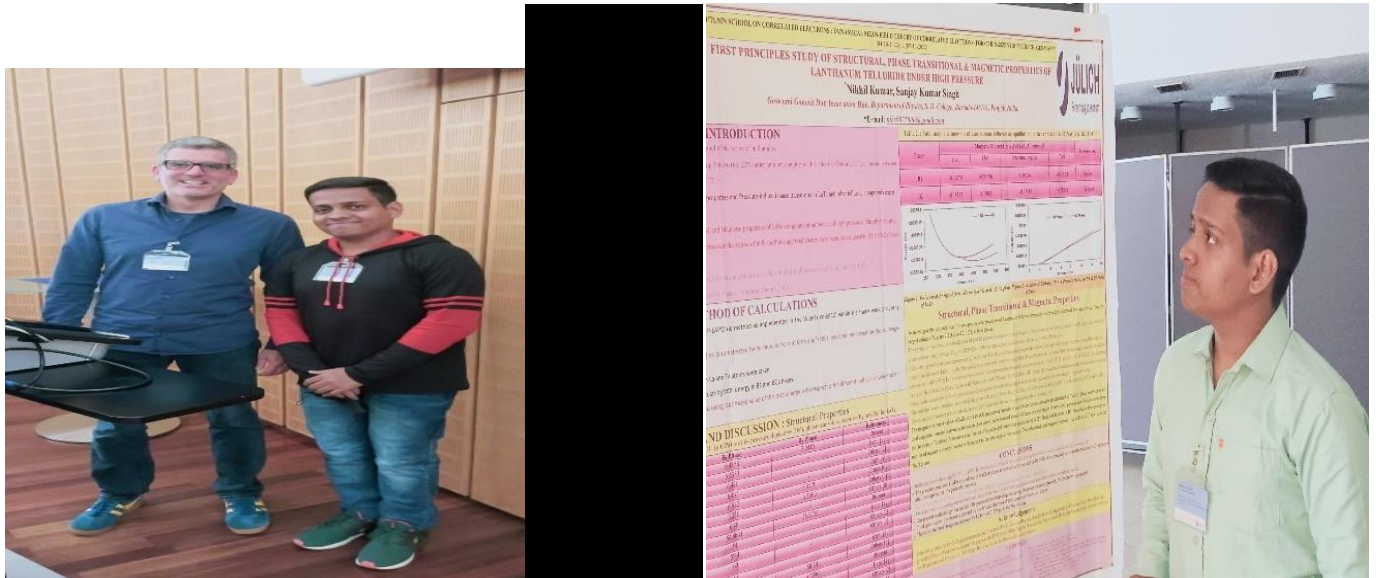
Various working models displayed in the Innovation Hub



Various working models displayed in the Innovation Hub



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One of Our student presented a poster at Autumn School of Germany