



## CRITERION VII: INNOVATIONS AND BEST PRACTICES

### 7.1 Environment Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

- The institution has a system for green-auditing of its facilities which is carried out informally by the National Service Scheme and Nature Club.
- The use of plastic bags is avoided in the campus and the authority is planning to declare the entire campus as “No Plastic Zone”.
- Students and staff are motivated to use jute bags or cotton bags
- The students and staff have planted several tree saplings during various tree plantation programmes organized by the institution through the NSS wing and all these trees are taken care of and maintained by the gardeners of the institution.
- Care is taken to ensure that the college environment has low levels of carbon emission and low pollution levels so that the campus is healthy for all.
- The college is declared as ‘No Tobacco Zone’

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

#### \* Energy conservation

- The College conducts awareness programmes on energy conservation and adopts measures to ensure that energy is conserved wherever possible.
- Every department follows a policy of switching on power only when required and switching off when not in use.

- Class rooms in the old block have very wide and long windows with a high roof of almost 15 ft which ensures that the use of lights and fans would be minimum as ventilation is naturally enhanced.
- Many classrooms, departments, administrative office and the Principal Chamber of the college are airy and well illuminated for the maximum use of natural lighting during the day time. Tube lights are used instead of incandescent bulbs wherever the natural lighting is insufficient to minimize power consumption. The institution strictly observes to see that no electric equipments run unnecessarily. Thus enough measures are taken to use electricity carefully.
- Almost all the computer monitors in use are either LED, LCD or TFT types to ensure minimum usage of electricity and also to reduce the level of radiation.

\* **Use of renewable energy**

- Presently no renewable energy sources are present in the campus
- Bio – gas plant has been installed for use in the girls’ hostel of the campus. The initiative to install this was taken by the department of Botany.
- Plans are ahead to install roof top solar panels

\* **Water harvesting**

- Rain water harvesting project has been implemented in the college. The water thus harvested is being used for watering the plants and gardens since 2003.

\* **Efforts for Carbon neutrality**

- Plantation of trees and green grass in the college quadrangle and in the front end.
- Potted plants dot the corridors of the college with more than 250 different samples.
- The College has made arrangements for the parking of the vehicles of the students and staff near the entrance. This helps in keeping the campus as much clean as possible.



- The campus is also smoke free. The dead leaves and waste papers are not allowed to be put on fire. The dead leaves and waste papers are scientifically decomposed off by burying them in the soil.

\* **Plantation**

Tree plantation drives are organized regularly to create clean and green campus. The NSS and NCC wings of the college take up planting saplings regularly. The Botany department of the college maintains a green house which houses a large variety of medicinal plants and wide variety of plant species.

The department of Botany has distributed about 1000 plant saplings of 'Madhunashini', a medicinal plant to students and faculty

Planting of tree saplings by chief guests during their visits to the college for various functions.

\* **Hazardous waste management**

The college generally does not generate any hazardous waste in any manner. However, the college strives to generate minimal waste and tries to reduce the use of plastics whenever possible.

- Waste is segregated as biodegradable and non-biodegradable.
- The college has built a solid waste disposal bin at the rear end of the basket ball stadium. Solid wastes like broken glass beakers, test tubes, rubber tubes, etc. are collected from the entire campus and stored here. This solid waste is then collected by the Bangalore Municipal Corporation every alternate day and is then disposed off.
- Use of pesticides and other harmful chemicals in the garden is replaced by adopting organic methods of gardening wherever possible.
- In order to dispose the acid fumes, chemistry labs are equipped with exhaust fans and fume hoods.
- Mild chemicals are used for cleaning and maintaining the campus.
- Sterilization is performed by autoclaving and then the remaining wastes are properly disposed off, in accordance with standard waste disposal norms.



- Vermicomposting is also in practice for disposing the wet waste from canteen and also other biodegradable wastes.

\* **e-waste management**

- Printer Cartridges are generally refilled and not disposed. Wherever refilling is not possible, the cartridge is returned to the manufacturer
- Paper waste is sold off to vendors who send it for recycling.
- Computers in satisfactory working condition, but are obsolete for the system, are usually used for teaching – learning purposes of Computer Architecture and Hardware courses. Similarly, computer parts and peripherals are reused in other systems.
- All damaged or non-functional electronic materials (e-waste) is returned to the manufacturer.
- UPS batteries are exchanged for a nominal cost (buy back offers) with the vendor of the new batteries.
- The management has evolved a procedure for e – waste wherein the individual departments in the college store the waste and once in six months it is collected by a designated person from the management. It is later sent for recycling units.

## 7.2 Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

- a. **Pre-placement training:** Students are imparted pre-placement training so as to prepare them for interviews. The college placement record itself speaks volumes and the placement records show impact of pre-placement training.

b. **SAFETY:**

➤ **INFRASTRUCTURE:**

- The main building has multiple entry and exit points with wide staircases.



- Fire extinguishers are strategically placed at multiple locations including the departments, laboratories, office, Principal's chamber, auditorium, library, etc.
- CCTV is installed at strategic locations in the campus and the monitoring unit is housed in the Principal's chamber to get a quick review of the activities in the college at different locations. This enhances the security system in the college as it also has recording facility.
- **DISASTER MANAGEMENT:** NCC cadets and NSS volunteers have participated in Disaster Management exercises.

**c. Academic**

- Seven class rooms are made ICT ready
- Department of Zoology has Smart interactive board to enhance the teaching – learning methods with latest technology
- Several departments have LCD/LED projectors useful for preparing and delivering the lectures through multimedia presentations
- Every department equipped with a computer and internet connectivity
- Library has a separate e – library which allows access for e – resources
- Question bank made ready in many subjects
- Lending 3 books per student to SC/ST/OBC from Book Bank for 1 year

**d. Feedback system**

Technology enabled learning environment is ensured. The basic computer knowledge has been made compulsory for all the students and the teachers. All the teachers have been instructed to have an email ID, so that important information could be shared instantly. This practice has enabled the teaching faculty to use computers and internet to improve their teaching practices.

**7.3 Best Practices**

- 7.3.1 Elaborate on any two best practices which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the college.



## 1. Title of the Practice

### I. Admission Process

## 2. Goal

- Meet and exceed institutional goals in admission strategically (enrolment and retention)
- To ensure access to higher education by all categories of students (Equity and Inclusiveness)

## 3. The Context

- The Science combinations of B.Sc. do not get good enrolment due to the demand for professional courses. The challenge is to attract and retain the students in science combinations.
- Due to the presence of many competitive institutions in the neighborhood, attracting quality students to B.Com., BCA and BBM is a challenge. The admission process must be started in time, the meritorious students identified at the earliest and the admission list is to be notified. Otherwise, delay in admission list generation would cause the bright students to seek admission elsewhere.
- It is essential to ensure gender equity and access to education by the marginalized sections of the society by giving due weightage in admission process as per the Karnataka Education Act.

## 4. The practice.

- i. The admission process starts by a publicity in the leading newspapers
- ii. The admission application forms are issued on the day of announcement of PU results of Karnataka State PU Board. The applications are issued till the last date and time for receiving the application forms.

### iii. The following important aspects are displayed for information to the general public and aspirant students.

- a. Seat matrix for different courses and for different categories of students as per the Govt. norms and the Karnataka State Education Act.
- b. The cut-off dates for receiving the filled-in application forms, announcement of first list of selected students, last date for admission of the students selected under first list, announcement of second and subsequent lists.



- c. Fee structure for different courses and different categories of students.
- d. Students desirous of claiming admission under special categories like Sports, NCC, Physically Handicapped, etc. are suggested to submit a copy of the application with necessary documents to either the Principal or Sports Director in person.
- iv. An acknowledgement is provided to the students for receiving applications showing the date of receipt and signature of the official-in-charge along with the college seal.
- v. The details of applications received are entered into the computer by data entry operators. The details involve student name, application number, marks obtained in PU or equivalent examination, institution last studied, category, Parental Annual Income, etc.
- vi. The consolidated lists of students who have applied for the different courses are generated after the last date for receiving applications merit-wise, category-wise and gender-wise. Applications received after the last date are marked as “LATE SUBMISSION” along with the date received and a separate list is generated. This list is used for admission under SC/ST/OBC category in case of short fall of applicants and the seats remaining vacant under that category. This ensures transparency in the admission process.
- vii. Admission to B.Sc. courses is based on *interview, academic record and counseling* after assessing the student’s aptitude and proficiency. No particular cut off percentages are set since highly meritorious candidates do not sustain in the course as they aspire for professional courses. In some cases, they are given time frames of a day or two to reflect on the counseling offered and report back for the admission.
- viii. **Admission to B.Com., BCA and BBM Course is based on merit.** Students who have studied in any of the BHS HES institutions are given 15% weightage while preparing the merit list. Several admission lists (usually three to four), till all the seats are filled, are announced on merit among the applicants.



- ix. *An Enquiry counter will be set up to answer the queries and show the position of the candidate in the consolidated merit-list.*

#### **SPECIAL ASPECTS:**

- *Admissions are carried out by a group of teachers with a senior faculty as the Admission Committee convener.*
- According to the seat matrix, the first list of students selected for admission is announced on the date and time mentioned. Last dates are made known to the applicants. Depending on the availability of seats, further admission lists are announced until the last seat is filled by merit.

#### **A. Students from disadvantaged community**

Seats are reserved under each of the categories like SC/ST or OBC as per the Karnataka State Govt. norms. Wherever the merit of students from SC/ST is higher compared to general merit students, the seats are announced from the general merit quota but at the reduced fees meant for these category students, thereby promoting a greater concern for equity of access to education. The fee structure is highly reduced and is as per the government norms. One of the mandates adopted by the college is to prioritize access to higher education.

#### **B. Women**

The gender equity is ensured by reserving 50% of the seats for women candidates exclusively in every category. Merit list is prepared from among the women candidates. Between a male and a female candidate with equal score, preference is given to female candidate for admission. The statistics over different years show clearly that the college has been successful in ensuring gender equity.

#### **C. Differently-abled**

Students with different abilities are advised to meet the Principal in person and establish the nature of infirmity with the necessary document. Based on the satisfactory presentation, seats are provided without looking into merit.





#### **D. Economically-weaker sections**

Based on documentary evidence and as per the Karnataka State Govt. norms, seats are reserved for such sections of the society. Fee concessions and merit-cum-means scholarships are provided to such students.

#### **E. Sports personnel**

Students desirous of claiming admission under special categories like Sports, NCC, or excellence in cultural activities are suggested to submit a copy of the application with necessary documents to either the Principal or Sports Director in person. Based on being satisfied with the documentary evidence, admissions are provided.

#### **F. Other State Students**

Students from outside the state are encouraged to join the college and such of those students are required to meet the Principal in person and seek admission. Subject to eligibility certificate and migration certificate issued by the concerned universities, admission is made either on the basis of merit or from the Management quota.

### **5. Evidence of Success**

- The increasing trend of SC/ST/OBC category of students and the total number of girl students exceeding the boy students is an evidence of success.
- The reduction of drop - out rate in admissions to the science and commerce courses is another proof of evidence.

### **6. Problems Encountered and Resources required.**

- There has been a competition generated amongst the staff of different science subjects to attract the students to their subjects. This sometimes creates unhealthy debates and unrest in the system.
- Due to a large number of students with merit belonging to reserved categories take seats from general merit quota, this entails a reduced financial resource to the college by way of fees. (Reserved categories of students have lower fee to be paid as per the Govt. norms)



- To ease the admission process and hasten the process, dedicated computers with good printers and high speed internet are essential. A robust admission software is required to be generated and custom made due to various constraints in generating the admission register, day book entries, receipt generation, etc.

### 1. Title of the Practice

#### II. Improving Teaching - Learning Process

### 2. Goal

- To ensure the completion of syllabus according to the academic planner of each department
- To encourage teachers to adapt to technological advancements including ICT adoption in class room teaching
- To improve pass percentage and enhance the number of ranks bagged by the college at the university level examinations

### 3. The context

- The syllabus coverage in some cases is being hurried and towards the end of the semester where information are being crammed at once. This sluggish coverage initially and hurried coverage later should be avoided giving enough time to student in comprehending the topics and assimilating the facts.
- The teachers find it difficult to keep pace with the techno - savvy student learners. It has become essential for some of the teachers to adopt to the latest pedagogic styles and include ICT in class room teaching. The mismatch between the student learner and the teacher in the use and comfort of handling varieties of tools available for teaching - learning needs to be bridged.

### 4. The practice

- Academic planner along with the calendar of events is uploaded on the website for information to students.
- The teaching - learning committee along with the heads of different departments monitor the pace of coverage of the syllabus.



- Informal feedback is obtained from students regarding the content delivery by different teachers. The teaching – learning committee members and the class teachers hold frequent informal meetings and cull out the information needed.
- Frequent assignments, tests and evaluation are conducted to improve performance in the semester – end examinations
- Seven class rooms are made ICT ready and many departments have the necessary tools for handling the class room teaching with the help of ICT.
- Computer science department staff and programmers train the teachers in the use of Power Point Presentations, browsing the internet for useful resources, uploading content on the college website, use of google docs for information sharing, etc.

#### **5. Evidence of Success**

- Some of the teachers have adopted modern pedagogic styles and ICT in their classes.
- Some of the notes are uploaded on the college website.
- Appropriately paced and timely completion of syllabus
- Increased attendance in the classes
- Improvement in results.

#### **6. Problems encountered and Resources required.**

- Development of animation based power point presentations in teaching, particularly in science subjects, has been hindered due to the want of in – house technical expertise.
- The demand for ICT resources is increasing and paucity of funds has been the biggest impediment which may dampen the spirit of technology adoption by teachers.



## 1. Title of the Practice.

### III. Enhance performance in physics

## 2. Goal

- Attract talented students to physics course
- Encourage physics students to pursue higher education in physics
- Instill healthy competition amongst students to outperform the other

## 3. The Context

- Admission to basic science courses is declining in general due to the proliferation of professional colleges and courses. There is a need to attract students to these science courses
- Input to higher education institutes and research institutions is witnessing lack of talented students and declining trend of enrolment. It is deemed that it is the responsibility of institutions like ours, to prepare and send many talented students to these higher education institutes.

## 4. The practice

- Prize amount of Rs.500 to Rs.1000 is provided to students securing highest marks in each of the semesters. This would be distributed during the annual college day to boost the pride of the recipient students.
- At the very beginning of the semester the students are informed about the incentives provided by the department for best performing students which inculcates a spirit of competitive attitude amongst the students
- Students are also informed about the various avenues available after completing the B.Sc. course and still pursue higher education with fund support from DST, UGC and CSIR. The nature of the competitive examinations to be taken is also made clear to them. Awareness about the NGPE examination conducted by Indian Association of Physics Teachers' and its specific advantages are also described.
- Question Bank and assignments are made available to all the students so that every students has the same edge to compete. Learning support is provided by academic counseling by the individual teachers and the head of the department.



## 5. Evidence of Success

- Increase in the number of students securing high marks. Sometimes, the prize is shared by three students with the same highest score.
- Increase in the enrolment to higher education institutes (students going to PG Physics and Mathematics) from the college
- Increase in the quality of results (number of distinctions, number of first classes, etc.)

## 6. Problems encountered and Resources required

- The practice was initiated in the year 2000. Since then the number of high scoring students has been on the rise. The fixed deposit of Rs.15,000=00 kept on that day is not sufficient to meet the expenditure in the present day due to more number of students scoring high marks. The expenses are borne annually by the staff of the department of physics in addition to the proceeds of the FD amount.
- It is essential to enhance the FD amount to atleast Rs.50,000=00 immediately so that the practice may sustain.

## 1. Title of the Practice

### IV. Mid - day meal scheme

## 2. Goal

- Encourage the students from underprivileged classes and economically backward class students to pursue higher education

## 3. The Context

- Attendance to classes by certain category of students was less and these students used to underperform and drop out from second year onwards. During the counseling process the cause was identified as the economic constraints of the family. These students used to take up jobs in super markets and such other retail shops to earn livelihood and get distracted from studies. To plug this problem, the teachers of the college initiated the mid - day meal scheme for the benefit of such students



#### 4. The practice

- Students from families belonging to below poverty lines were identified either by the class teachers or heads of the departments. Some of them were identified by the attendant staff of the college. Such of those students identified as having economic problems to pursue higher education were counseled by the Principal, Vice – Principal and the head of the department of statistics. In the initial years only certain teachers were involved in managing the financial burden of these students including their fee component. Later, on having thread bare discussions on the issue, it was decided to name the head of statistics department as the Coordinator for mid – day meal scheme and every staff member agreed to contribute Rs.1000=00 per annum towards the scheme. A separate account has been created for the purpose.
- Having learnt about the initiative taken by the staff of Vijaya College, the proprietor of Sanman Hotel, a hotel near by the college, volunteered to provide lunch to such of those students referred by the college during the term days.
- About 15 students per annum are benefitted by the mid – day meal scheme. The scheme was launched in the year 2011 and totally about 60 students have been benefitted till date.

#### 5. Evidence of success

- Attendance in the classes by these class of students has improved
- Drop out rate of such students has become minimal.
- Some of them have completed their degree.

#### 6. Problems encountered and Resources required

- The biggest challenge of the scheme is the identification of the deserving candidate. We have identified that a small cross section of students had misused the scheme. Having learnt about this, some of the staff members have developed a negative attitude on the utility of the scheme. Sustainability is an issue in the light of this development.



## Contact Details

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