

# **Best Practices (VFSTR)**

## **Best Practice – I**

### **Title : Faculty Development Programme**

#### **Introduction:**

VFSTR strongly believes that Human resources are an important element that is needed to realize the Institute's goals and aspirations. Hence, VFSTR is trying to maintain a highly skilled and efficient academic faculty in order to achieve excellent standards in all the disciplines offered by the Institute. In view of this, the Institute recruits, nurtures, and retains the best faculty to meet the changing needs of the curriculum, teaching, research, and consultancy.

The shortage of faculty is the basic problem for all the institutions including the premier institutions. It is also a fact that well prepared and "ready made" faculty will not be available at any given point of time. Hence Faculty Development Programme is considered as a serious activity to prepare and mould the faculty.

#### **Objectives :**

##### **The objectives of the FDPs are to enable faculty to:**

- Understand the significance of higher education, in the global and Indian contexts
- Acquire and improve the art of teaching at the university level to achieve goals of higher education, and to be effective in the transfer of knowledge
- Accord importance to research activity in addition to academic activity
- Understand the linkages between education and socio-economic, and cultural development.
- Keep abreast with latest developments in their specific subjects, and acquire knowledge and skills in new and emerging areas
- Understand the organization and management of the Institute and to perceive the role of teachers in the total system
- To familiarise with the philosophy and culture of the institution, especially to make every program student-centric.
- To work as a matured counsellor to the students, and to contribute to their overall development.
- To train on the basics of administrative work.
- To familiarize ICT usage in teaching and also in the preparation of digital content to promote self-learning.

#### **Context:**

The university recruits teaching faculty by adopting a rigorous three tier process of written test, technical interview and a final interview by the selection committees. Utmost care is taken in recruitment of teaching faculty by constituting selection committees with experts from premiere institutions like IITs, NITs, State and Central universities. The Institute also conducts special drives at IITs and NITs to recruit well qualified and competent faculty.

A qualified and competent teaching faculty enhances the breadth, depth and quality of teaching, research and consulting. The role of a teacher is not only to provide instructions to the students but also to develop their overall personality. The faculty plays a pivotal role in shaping the career pursuits of the students, mould them into professionals, and responsible citizens.

It is observed the most of the fresh recruits :

- are not familiar and thorough with all the concepts of the subjects they have to teach.
- Need to understand the students and their attitudes
- their approach with the students is either too rigid or too much liberal.
- do not have any idea of counselling and mentoring system
- lack team spirit to work with their colleagues.

If the faculty is directly put on the job with this kind of deficiencies, they may be failure in the class leading to unhappiness in the campus.

To avoid this kind of problem and also to transform them into effective and efficient faculty, Faculty Development Programme is planned, well designed, and conducted very seriously in the Institution.

### **The Practice:**

VFSTR has an “Academy for Faculty Development (AFD)” to organize the Faculty Development activities. Keeping in view the larger scope and requirement of these activities, it was upgraded to Directorate of Academic Faculty Development in 2017, with a Dean heading the Directorate. This Directorate plans and organizes all the Faculty Development activities.

### **FDP is being practised in the following ways :**

#### **1. Faculty Orientation program:**

This is mostly done by a dedicated in house team along with administrators like Registrar, Deans, Vice-Chancellor, and also involving the best academicians from outside.

#### **Components of the program:**

1. Creating awareness on the comprehensive role of the teacher ie., teacher, researcher, counsellor, and administrator.
2. Preparation of the quality content and its process of having complete idea of entire subject and connectivity between different concepts.
3. Presentation of the content in the class room using various teaching methods and ICT technology.
4. Details of delivery of content with stress and pause support of teaching aids.
5. Method of conducting group discussions, seminars, and making them interactive.
6. Explaining about the importance of counselling system giving various illustrations of the issues of the students.
7. Creating awareness of the importance of research for the careergrowth.
8. Correction of attitudes for the smooth landing in the department.
9. Creating awareness on administrative roles like conducting workshops, seminars, guest lectures, conferences, motivating the students to conduct the events etc. After the completion of the above program the faculty members are introduced to the department by allotting mentor for hand holding till they get settled.

#### **2. Faculty development program by NITTTR:**

**External agencies like NITTTR Bhopal and Chandigarh and other experts are invited to develop:**

- Teaching and evaluation methods oriented towards outcome-based education
- Various modes of setting the question papers
- Other evaluation methods suitable for attaining POs and PSOs.

- Methods to encourage the self-learning among the students.

### **3. Faculty development through exposure to the industry:**

10% of the faculty at the end of each semester deputed to the industry for 2-4 weeks for the following purposes:

- To identify the industrial requirements and to enrich the curriculum.
- To acquire skills and transfer the same to students through laboratories.
- To negotiate with the industry for the consultancy or collaborative work.
- To acquaint with industrial best practices and to incorporate the same in the institution.

### **4. Faculty Enrichment :**

The institute has initiated special programmes intune with the recent changes and also to prepare the faculty for the future on the following:

- Artificial Intelligence(AI),IoT, Machine Learning, Data science etc.to all the faculty across the branches
- Special incentives to the faculty who complete NPTEL, Coursera courses in the emerging areas.
- Special program on teaching of programming skills to the faculty of other departments.
- Training on writing the papers for reputed journals and project proposals.
- Methods of undertaking inter-disciplinary projects.
- Process of planning and executing conferences and workshops.
- Process of executing extension and consultancy activities which are socially relevant.

Directorate of Academic Faculty Development organized a total of 16 FDP Programmes during 2016-2019, with a total participation of 903 participants. In addition, it organized 176 specialized training programs with the help of different Departments (in-charge of various Programs) during the same period for the development/enrichment of the Departmentspecific Faculty. 160 Faculty members from different Departments are given specialized training for two weeks in Computer Science / Engineering courses in emerging areas. Faculty worked in industries for 2-3 weeks in the last five years. In fact, the FDPs is a continuing activity in VFSTR to the benefit of the Institute and Faculty.

### **Evidence of success :**

- 90% of the faculty are in “A” category having more than 90% of feedback from students continuously
- The institution always maintains outcome of academics as more than 90%
- Very minimal number of complaints from the students or the student committees on the quality of teaching.
- Though the standard of students is in varied levels during the admission time, ultimately more than 80% of the students are placed in multi-national companies.
- VFSTR has not witnessed even one case of disturbance on the campus because of the matured counselling.
- Every faculty member has published minimum 1 paper per annum in the last 2 years which is considered to be a very healthy development for faculty as well as the institution.

## **Problems Encountered and Resources required:**

- Payment of full salaries during the induction time and also during the industrial visits costs Rs.80-90Lakhs per year to the Institute.
- Charges for the external agencies like NITTTR and external experts are very high to the tune of Rs.10-15 Lakhs.

## **Impact**

This kind of process may be emulated on a large scale for the benefit of Indian education system as a whole, as every institution (big or small without any exception) is seriously suffering from the lack of competent faculty. As it is mentioned it should be done through a multiple approach involving the in-house people, external agencies and also the industries for the real development of the faculty.

The Institute is continuously striving to further strengthen the faculty so as to bring balanced growth in all disciplines on one hand, and achieve excellence in the specialized fields on the other hand. To strengthen the faculty, the Institute is inviting scholars of high academic standards in various subjects, to associate with the Institute. Further, the services of the aforesaid experts will be utilized to inculcate research and consulting culture among the younger teaching faculty.

## **Best Practice - II**

### **Title : Care for Health and Fitness of students**

The health of the students is a special focus of the Institute always, appreciating the need to sensitize and train students on the importance of building a robust physique and up-keeping their health. VFSTR has converted its standard practices in to a special course on Physical Fitness allotting three credits in its R19 curriculum. The course is aimed at helping students to develop into all round, physically robust and psychologically balanced professionals, so that they can enjoy sustained success in both professional and personal spheres of their lives,

### **Objectives:**

1. To contribute healthy and knowledgeable professionals to the nation.
2. To enable all students to adopt a healthy lifestyle, so that they can continue to conduct their duties with high energy and stamina all through their lives.
3. To create a lifelong consciousness on health.
4. To maintain a happy and positive outlook among faculty and students.
5. To make students physically fit to ward off any disease or epidemics in future.
6. To allot Credits to motivate and encourage students to take training on physical fitness more seriously.

### **Context:**

- It is observed that 40 - 50% of young students of age 18 – 19 years admitted into the Institute do not enjoy robust constitution or enjoy good health in the holistic sense of the word.
- A fair number of them (especially girl students) are found to suffer with anemia and in some cases with obesity. This could be due to the prevailing conditions in the schools without play grounds and no time for any kind of exercises. This is also aggravated due to the changes in the life styles at homes living in the small apartments without proper ventilation and also consuming junk foods etc.

- Though India takes great pride in the fact that is a demographically young country, the health of the youth leaves a lot to be desired. There is a need to initiate some measures to address this issue.

#### **The practice:**

1. All the students, after admissions are tested by the Physical Directors on their capacity for physical exertion, like their walking and running capacity and other physical attributes.
2. Students' health records are created at the time of admissions.
3. Students are motivated on physical health and its impact on their overall professional development by the faculty members, counsellors along with physical directors as well as by external experts.
4. The required time is provided in the time table for students to use the ground/athletic track. Students have to compulsorily participate in running exercises, besides their participation in sports and games based on their interest.
5. Those who fail to meet the minimum standards are asked to come to the ground regularly and put through a regime of exercise over what is provided in the time table.
6. Students are given special food like ground nut bars, dates and other dry nuts as well as iron-rich food in the hostels.
7. A detailed system is available to track and record the development in the health of the students.
8. Walking and running times of a standard distance are selected as the criteria for awarding credits because these two parameters are common to all and does not require any prior talent.
9. Different batches of students are initially tested for the average time of running and walking for specified distances, and the parameters for evaluation at the end of the semester are evolved.
10. Participation in 50% of the total physical fitness classes in the ground is another parameter for securing the credits.
11. Students are tested once in 45 days to record the improvements in their running time, oxygen levels, and participation in sports/ games etc.
12. Final evaluation is carried out as a part of end semester examinations.

#### **Evidence of success:**

1. Number of students with anaemia / obesity / general health problems is found to be reduced from 40% to 5% by the end of the academic year.
2. Performance in academics is found to have improved owing to sound health.
3. Substantial improvement in confidence levels of students and their happiness is noted.
4. Change in life style of the students is observed with respect to quality of food intake and exercise patterns. The Institute is happy at this outcome though an additional expenditure of Rs.40-50 Lakhs per year is required for the hostels.
5. Number of students with ill health on any given point of time is less than 0.1%.
6. Even during the Covid-19 period, no student has reported contracting the virus even though national figure of total Covid-19 patients has been roughly 0.5% of the total population.
7. The participation of the students in online classes and in online examinations during the Covid-19 period is more than 95% which is evidence of their good health.

#### **Problems encountered and resources required:**

1. Resistance among students and their parents due to lack of awareness on physical fitness.
2. Some students, particularly girls, expressed inhibitions to participate in the exercises.
3. An investment to the tune of Rs.70-80 lakhs was needed on the sports facility, and equipment for an Open Air Gym facility.

4. Requirement of a good play ground and basketball courts costing roughly Rs.40-50 lakhs, and also the requirement of investment on consumables.
5. Requirement of extra spending on employing Physical Directors and Coaches.
6. It is challenging to identify and to recruit the relevant coaches.
7. Extra expenses are to be incurred for providing special food.
8. A lot of discussion with experts was required, to carryout trials with students to arrive at the parameters for evaluation.

This programme is in tune with FIT INDIA mission of the Hon. Prime Minister, which was introduced in the Institution much earlier, even before his call. This may be one of the good practices fit to be introduced in all other higher educational institutions to make the country a robust and healthy nation.