

*Natures' curriculum cannot be changed*

- Martin Lewis Perl

## **Criterion I: Curriculum Planning and Implementation**

The institute is affiliated to Bangalore University and hence it is mandatory for us to follow the syllabus prescribed by the University. However to achieve student needs, industry expectations, emerging national and global trends, we add value to the curriculum by various additional inputs/programs. In the curricular updating, we consider different levels of learners; impart multi-skills on par with industry and job requirements thereby linking it to the mission objectives.

### **1.1. Curriculum design and development**

**State the vision and mission of the institution, and how it is communicated to the students, teachers, staff and other stakeholders?**

#### **VISION**

**“We want that education by which character is formed, strength of mind is increased, the intellect is expanded, and by which one can stand on one’s own feet”.**

**-SWAMI VIVEKANANDA**

#### **MISSION**

**PIMS is dedicated to:**

- Foster intellectual growth and character development.
- Inculcate the idea of lifetime learning process.
- Provide education that transform lives, build communities that improve society.
- Assert skill development leading to self sustainability.
- Develop scientific temper amongst faculty and students.
- Develop leadership qualities that enhance collaborative approach, professional relationships with industry and research organisations.

## CORE VALUES

- Contributing to societal development
- Promoting team work and inculcating values.
- Holistic development of students
- Pursuit of academic excellence

The mission, vision and core values are demonstrated in action and reiterated time and again during inauguration of courses, staff meetings, student gatherings, workshops, seminars and mentor meetings. It is also posted on the website and in the campus. The objectives are clearly explained to the students during orientation program. Students are involved in extension activities and allowed to disseminate values to nearby school students and teachers. The core values of the institute were integrated into programs and communicated to all the stakeholders during eco week, safety week and other annual events.

The mission states the urge to provide education which changes lives and helps in building a better community and thereby improving society. It also promises holistic development of students which foster intellectual, physical and emotional upbringing. Inculcating scientific temper and leadership qualities is the institution's tradition and character development is targeted towards value orientation which is reflected in mission statements.

### **1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s)**

The institution has evolved with an organized system for effective implementation of the curriculum. Institution specific calendar of events is designed with a basis of Bangalore university calendar of events. Subject distribution meeting

is conducted well in advance and based on the teachers expertise subject allotment is done for every semester. Teachers are asked to submit the course plan which include sub-topics of the syllabus and number of hours required. The same course plan will be cross verified by the HOD and monitored on daily basis as and when the lectures are planned and delivered. Students are given with assignments from the completed syllabus and the topics are displayed well in advance. Every student will be guided by subject teacher for the completion of the assignments on time. Student seminars are allotted based on the curriculum and latest updates in the same. All the seminars are judged and a best seminar will be awarded with a certificate. With respect to practical syllabus, students will be provided with a practical manual/experimental procedure developed by teachers and encouraged to do individual experiments. This will provide hands on experience to students. Daily reports, weekly reports and syllabus completion reports are introduced for effective implementation. Teachers are requested to identify weak students and special assistance is provided. For getting acquaintance in the latest developments in core areas, eminent scientists and industry guest lectures are organized.

With the meticulously developed action plans for effective implementation of the curriculum the institute has periodical monitoring. Teachers are directed to maintain work diaries and weekly schedules are planned based on the number of working hours available, considering leave applications, examination duties. After completion a monthly assessment is done for the syllabus completion and activity reports. Plan of student seminars, assignments, group discussions were placed in monthly meetings and suitable changes are made based on the suggestions given. Faculty members are motivated to impart the curriculum by adopting innovative

teaching methods such as power point presentations, animations, role plays, group discussions, workshops, seminars, industry visits, apart from regular teaching methods. Remedial classes are held for the weak students and slow learners and incorporated into the academic schedule.

**1.1.3 What type of support (procedural and practical) do the teachers receive? (from the university and/or institution) for effectively translating the curriculum and improving teaching practices?**

Institutions endeavour to achieve academic excellence, teachers are provided with atmosphere and encouraged to use innovative practices in teaching. Performance based support is provided and allowed to participate in national conferences, workshops, and seminars. The faculty members are also sent as resource persons to various colleges for deliberating lectures and training students in practical modules. College provided complete support to teachers for pursuing doctorate programs and M.Phil. programs. These ensure teachers to update themselves in latest research methodologies and implement the same in practical training. Teachers are encouraged to do short term courses at Indian Institute of Science and also in industry. This will help to acquire practical skills which are very critical as many of the programs offered at the institute are laboratory-oriented.

Institute organised a workshop by Academy for Creative Teaching (ACT) for improving their teaching skills. There are periodical meetings organised by Bangalore University to provide materials regarding the revised syllabus. Department of Biotechnology, Bangalore University even provided procedures for selected experiments for the revised syllabus. Teachers regularly interact with university faculty to exchange their ideas and also to improvise the curriculum.

The University frames an Academic Calendar, specifying the date of commencement of semester, duration of the semester, examination dates, end of the semester etc. With due interactions with BOE and BOS of the university, HODs of the institute specify calendar including course planning, semester planning, guest talks, seminars, etc.

The University departments calls for a meeting and conducts an orientation programme for the faculty members that consist of course-wise guidelines for the delivery of the curriculum, evaluation methods, and syllabus inputs.

The University/ Institute conduct Refresher Courses for the benefit of the faculty members. The Institute depute teachers for participating seminars addressing the latest trends in teaching pedagogy, trends in the use of ICT, utilization of learning resources, Creative teaching.

The College has taken Bangalore University Library membership. The faculty and students of our institute utilize the university library facilities by visiting them as and when required.

Institution sends teachers for Faculty Improvement Program (FIP), Quality Improvement Program (QIP), AICTE and UGC sponsored programs conducted by the university or by other Institutions. The College bears all the expenses such as TA/DA, Registration/Participation Fee for attending such programs. Brain storming sessions and discussions are further organized to disseminate the inputs gained from the above orientation and refresher programmes.

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other statutory agency.

Curriculum delivery is planned in advance in the form of lesson plan, practical manuals and course plans. Use of latest animations, other information technology aids and teaching aids are encouraged and integrated into regular classroom teaching. The institution regularly conducts orientation programs from industry experts in order to update the industry expectation regarding, practical skills, information technology and soft skills. The computer section in the college provides all information technology related services to every stakeholder in terms of free access to internet, training in computer basics and use of bioinformatics software. Since the UG courses have a compulsory paper on fundamentals in computers, we give more importance to this subject and train students suitably. The digital library established is also helpful in using all latest communication technology in supporting the classroom teaching.

For future needs, the college is planning to have an interactive language lab with an objective of enhancing communication skills among students to suit the present day requirements. We also have the proposal on cards for installing interactive boards for effective classroom teaching.

**1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalisation of the curriculum?**

Our motto is to impart industry-oriented education and entire program is meticulously designed. Our senior faculty members with industrial experience who are a part of advisory panel of industrial R&Ds are made in charge for conducting these modules. The scientific advisory board comprising of scientists from industries and academics, helped us to modify the projects and training programs with interdisciplinary approaches based on the industrial needs. These programs are made

after discussing with industrialists, academicians from university, Chairman, BOS, and management team to affirm holistic approach towards imparting quality education.

As a part of skill development students are allowed to visit industries, R & D labs and higher education institutes like IIHR and IISc to collect information and literature as a part of their project work. This orients students towards self development, creating employment opportunities and improving their communication skills.

The competitive examination cell constituted has been instrumental in training students to take up exams like TOEFL, GRE, CSIR, GATE, DBT, etc. and encourage them to pursue education in the country and abroad too.

**1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University? (Number of staff members/departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions, etc.**

University conducts regular formal and informal meetings throughout the academic sessions and addresses faculty members to keep themselves abreast with the change in curriculum and specific needs. University recently has taken an initiative to restructure undergraduate programs from 3 years to 4 years course and called for a brain storming session. College principal and HODs attended the meeting and actively participated and put forth their suggestions. Professors from the University are made members of scientific advisory committee invited for discussions, workshops and for professional interactions with the faculty members.

Our institution offers PG Diploma course in Biotechnology under Biotech Finishing School Concept supported by Government of Karnataka and Department of Biotechnology, Government of India. Dr. Anuradha, Principal is the Convenor – BT Finishing School Steering Committee that was constituted to coordinate various activities of 12 biotech finishing schools established in Karnataka. She is also Chairman of BOS and Member of BOE for institutions that have collaborated with KSOU, Mysore and offer courses under BT Finishing School. Institution Research Co-ordinator, Dr. Balasubramanya who is also Member - BOS and Member - BOE was instrumental in getting the syllabus vetted by industry. The feed backs obtained by the students and teachers are analyzed in a strategic way by the academic cell. All constructive suggestions for the curricular improvement and up gradation are considered and discussed with academy and industry experts. Such outcome and suggestions are conveyed to the university through our faculty representatives during university organized meetings.

**1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it? If ‘yes’, give details on the process (‘Needs Assessment’, design, development and planning) and the courses for which the curriculum has been developed.**

One such initiative “Biotechnology Outreach Program” was started in the year 2002 to offer career and job-oriented courses/workshops. The list of such program is as follows:

- Plant Tissue Culture and Secondary Metabolites Production
- Animal Tissue Culture and drug testing in cell culture models
- Analytical chemistry with special reference to Pharma & Herbal industry

- Bioprospecting and Phytochemistry
- Quality Control and Quality Assurance

Within a span of three years, over twenty workshops in plant tissue culture and secondary metabolite production were conducted for students of UG and PG level.

Apart from this keeping in view of the demand in the industry for trained personnel, dual degree programs are introduced into the curriculum in collaboration with Karnataka State Open University, Mysore.

- Diploma in Food Processing and Packaging
- Post-graduate Diploma in Food Safety & Regulatory Compliances
- Post-graduate Diploma in Food Technology
- Post-graduate Diploma in Plant Cell, Organ Cultures & Secondary Metabolite Production
- Post-graduate Diploma in Animal Cell Culture and Drug Testing
- Post-graduate Diploma in Applied Nutrition
- Post-graduate Diploma in Clinical Research and Data Management
- Post-graduate Diploma in Healthcare Quality Management

All the programs designed on par with job requirements and to address industry needs. Eminent academicians and industry people are made part of the program design and development. All statutory requirements were completed and courses will be launched soon.

#### 1.1.8 How does institution analyze/ensure that the stated objectives of curriculum are achieved in the course of implementation?

The Institution has well-defined structure in the form of Academic Cell. Academic Cell consists of HODs and Course Co-ordinators. Roles and

responsibilities are informed through proper communication channels to all the stakeholders to ensure the effective implementation of objectives of the curriculum. Critical factors like teacher allocation, student performance, feedback mechanism, teacher performance, skill development, student achievements, and faculty achievements were implemented to assess and ensure the accomplishment of the stated objectives of the curriculum.

Objectives Vs ensuring parameters

**To foster intellectual growth and character development and to inculcate the idea of lifetime learning process.**

Student and mentor relationship is strengthened by conducting regular meetings and periodical counselling and personality development is done on one to one basis.

**To provide education that transform lives, build communities that improve society.**

Students are encouraged to apply societal projects under Department of science technology. Every year to the credit of PIMS, students are securing fellowships under the scheme of societal development and to reach masses with a scheduled programs of scientific importance. Institute conducts annual Eco-Week program involving neighbouring schools. This helps students to understand their role in community development.

**To assert skill development leading to self sustainability.**

Various skill development programs and workshops are organised to student fraternity not only helping them to secure jobs but also get confidence to become entrepreneurs. Hand holding and guidance is provided to students with

entrepreneurial skills. There are few success stories where students have started their own ventures and now self sustainable.

**To develop scientific temper amongst faculty and students.**

To inculcate scientific temperament students and faculty are directed to publish papers, attend seminars, conferences etc. Institution also organised seminars and workshops for the benefit of students and teachers.

**To develop leadership qualities that enhances collaborative approach, professional relationships with industry and research organisations.**

Students are sent to various academic institutes and industries to build relationship and develop collaborative approach. Industry personnel are invited to guest talks and they are allowed to interact with them.

## **1.2 Academic Flexibility**

PIMS offering various graduate and post graduate programmes is a self-financed institute, affiliated to Bangalore University. As an affiliated college, it is mandatory to adopt the curriculum designed and prescribed by the University. MBA curriculum provides flexibility in selecting the core elective options in the Final Year of the study. PIMS believe in providing choice and academic flexibility to students and hence introduced add on programmes and also additional experiments in the practical sessions. Students are encouraged to take up interdisciplinary projects as per their choice in the final semester.

### **1.2.1 Specifying the goals and objectives give details of the certificate/diploma/ skill development courses etc., offered by the institution.**

The specific goals of the institution is to provide, Student centered education, Industry orientation, Skill development, Personality and character development and

Inter personal skill development. To reach the above mentioned goals focused objectives are derived and many job oriented tailor made certificated programs are carved and are given as under followed by the objective of the program

- i. Plant tissue culture and secondary metabolite production:** A very well designed program with specific objective of training students to start their own venture or to serve commercial tissue culture industry.
- ii. Animal cell culture and drug testing:** An upcoming and important tool, and these skills are useful to secure jobs in pharma segment. Students after completing this course are absorbed into the industry.
- iii. Phytochemical techniques:** The major objective of this program is to train students in interdisciplinary areas. Students from biochemistry and biotechnology after learning these techniques taught in the certificate course used to pursue their doctorate program.
- iv. Chromatographic techniques:** Another skill oriented and useful course for all science streams irrespective of subject specialization. Students from different departments are pooled and trained during this program. Industry experts are called as resource persons which fulfilled the objective of networking with industries.
- v. Quality control and quality assurance:** Highly useful course which is oriented towards, pharma, food, beverage industry, herbal industry, cosmetic sector etc. A training program for industry personnel is organized in QC and QA.

1.2.2 Does the institution offer programs that facilitate twinning/dual degree? If 'yes', give details.

In lieu of facilitating additional skill sets, twinning programs are planned and statutory requirements are completed with KSOU and the following additional programs are in line from this academic year.

- Diploma in Food Processing and Packaging
- Post-graduate Diploma in Food Safety & Regulatory Compliances
- Post-graduate Diploma in Food Technology
- Post-graduate Diploma in Plant Cell, Organ Cultures & Secondary Metabolite Production
- Post-graduate Diploma in Animal Cell Culture and Drug Testing
- Post-graduate Diploma in Applied Nutrition
- Post-graduate Diploma in Clinical Research and Data Management
- Post-graduate Diploma in Healthcare Quality Management

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:

- Range of Core/Elective options offered by the University and those opted by the college
- Choice Based Credit System and range of subject options
- Courses offered in modular form
- Credit transfer and accumulation facility
- Lateral and vertical mobility within and across programmes and courses
- Enrichment courses

**Core options** The undergraduate programs are in terms of Life Science, Computer applications and Management. The post graduate courses include different discipline of life sciences, organic chemistry and Management Studies.

The MBA programme provides option for specialization in two subjects.

**Add-on courses: List of add on programs are**

Plant tissue culture, animal cell and drug testing in cell culture models, analytical chemistry with special reference to pharma and herbal industry, Bioprospecting and phytochemistry, secondary metabolite production, quality control and quality assurance. These programs are conceived based on industry inputs and requirements to the students for their career growth and development. All the courses and add on programs run in life sciences are **interdisciplinary** in nature.

**Flexibility** to the student to move from one discipline to another.

As the institution is abided to university regulations, moving from one discipline to another is not allowed. However all life science students are allowed to do projects and add on programs in other departments.

**Flexibility to pursue** the program with reference to time frame.

The addon programs and certificate courses available in the college are tailor made and for all the add on courses listed above the time frame ranges from one week to six months.

As all the courses of Bangalore University are semester based, considerable academic flexibility is required to accomplish the required output. Courses like biotechnology, microbiology and biochemistry need prolonged timings and schedules for certain experiments. In this case timings and practical schedules are changed

accordingly. Students are provided with an opportunity to observe results even after the semester, as the results needs prolonged incubation period.

### **Flexible time for completion**

The time for completion of course is abided to university regulations. Usually a flexibility of two years is provided to students to complete the course after the regular period of course.

1.2.4 Does the institution offer self-financed programmes? If 'yes', list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

Yes, the Institution offers only self-financed programmes viz.,

#### **Undergraduate programs** (Three year program with six semesters)

B.Sc (Biochemistry, Genetics and Biotechnology), BBM and BCA

#### **Postgraduate programs** (two year program with four semesters)

M.Sc Biotechnology, M.Sc Biochemistry, M.Sc Microbiology, M.Sc. Organic Chemistry and MBA

#### **Certificate/ Add on courses**

Plant tissue culture and secondary metabolite production.

Animal cell culture and drug testing.

Phytochemical techniques.

Chromatographic techniques

Quality control and quality assurance.

As institution is unaided college all the courses are self-financed and hence a uniform procedure is practiced for all courses.

1.2.5 Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If 'yes' provide details of such programme and the beneficiaries.

Yes, the College is continuously striving to excellence both in terms of academics and placements. To meet the expectation of industry and growing need for both technical and for soft skills. the institution has put together a comprehensive list of certificate and PG diploma programs that can enhance student's ability to proceed from classroom to corporate. The lists of these programs are already mentioned above.

1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice" If 'yes', how does the institution take advantage of such provision for the benefit of students?

Yes, taking the advantage of the flexibility of combining one regular program with one diploma many job-oriented diploma programs are designed and in collaboration with KSOU those programs will be started from current academic year. If student pursues these courses along with regular M.Sc., programs, the value addition to their curriculum is enormous, as these are the trends in industry and not covered in the regular syllabus.

### 1.3 Curriculum Enrichment

1.3.1 Describe the efforts made by the institution to supplement the University's Curriculum to ensure that the academic programmes and Institution's goals and objectives are integrated?

Being a college affiliated to Bangalore University the option of formulating own curriculum is not possible, however where ever possible add on short term courses and modifications in the practical and projects are made. The changes made are having industrial relevance and meeting the Institutional goals and objectives. The major academic goal is inculcate to highest intellectual standards through rigorous academic training, commitment & discipline. Institution takes extra care and integrates many programs and also inspires students for achieving higher standards in mastering the chosen subjects. In a path to reach the goals, institution constantly and rigorously improves the methodologies adopted by teachers and mentors. With the active involvement of the College Advisory Committee and faculty members every program is enriched with additional seminars, industry talks, guest talks, industry and institution visits. Complete freedom and academic flexibility is possible during the final semester of both P.G and U.G, because of the project work as per the curriculum. Students are encouraged to start projects 6 months earlier, so that they can get the result, as many of the experiments have longer incubation periods.

**1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?**

Student exchange programs are practiced, for example, every year students are sent to Maharani Lakshmi Ammani college, Bangalore for Bioinformatics training. At the same time their students are trained at PIMS in plant tissue culture and secondary metabolite production. In a similar way students are sent to industries like Radiant Research and Probiosys to get acquainted with latest techniques in the industry. Students are deputed for the live projects supported by the industry. Regular industry

feed backs are taken and certain skills are incorporated into their projects. BiodHRona, an in house set up regularly conducts workshops, training programs, seminars for equipping students to the growing needs of dynamic employment market.

**1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?**

The cross cutting issues like gender, climate change, environment education, human rights, ICT etc., are included into the curriculum by organising seminars, workshops, discussions for the following issues:

**a) Gender Sensitization**

Discussions, debates and guest talks were organised in the issues related to gender sensitization. International women's day was celebrated during which boys and girls are encouraged to participate. The initiative and response from the students is illuminating. Faculty and students have delivered talks on Role of a citizen for women empowerment, opportunities provided by Government to encourage women in science and technology.

**b) Climate change and Environmental Education**

Environmental studies as a subject is taught in the university syllabus for all undergraduate courses. An Eco Club is formed and guest lectures on environment awareness are arranged. Annually, since 2006 Eco Week is organized every year highlighting the importance of environment and its conservation. Students actively participated in "Hasiru Santhe" a one-day programme organised at Malleswaram Girls' High School by Bruhat Bangalore Mahanagara Palike (BBMP) to educate and

motivate people to become eco-friendly. Models and posters were displayed and medicinal plant saplings were distributed to the general public.

**d) Human rights**

Creating awareness about human rights is continuously demonstrated in the campus. Food safety and security day is organised, to impart sensitivity about food wastage inside the campus. The importance of Voting has been promoted among students by undertaking various activities under **JAAGTE RAHO! Club** that was formed in the year 2010 by the Group Institutions in partnership with Janaagraha (a Bangalore-based non-profit organization). The objective of the club is to inspire values of active citizenship amongst all students of college. The Club works regularly towards higher voter registration and voter turnout in our campus, and to promote the spirit of volunteerism. Recently during the Karnataka Legislative Assembly Elections - 2013, voter awareness campaign was carried out by the faculty by visiting nearby places by involving student volunteers. An active anti-ragging cell is created inside the campus which actively creates awareness among students. Indian Constitution is an integral part of the University curriculum, which helped students to know about human rights. Programs are planned and inputs are also given to all stake holders in the campus on Consumer Rights, public interest litigation, RTI and RTE.

**e) ICT**

The institution regularly conducts orientation programs from industry experts in order to update the industry expectation regarding information technology and soft skills. The computer section in the college provides all information technology related services to students in terms of free access to internet, training in computer basics and use of bioinformatics software. Since the UG courses have a compulsory paper on

fundamentals in computers, we give more importance to this subject and train students suitably. The digital library established is also helpful in using all latest communication technology in supporting the classroom teaching.

For future needs, the college is planning to have an interactive language lab with an objective of enhancing communication skills among students to suit the present day requirements. We also have the proposal on cards for installing interactive boards for effective classroom teaching.

#### 1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students?

**Moral and ethical values:** To inculcate moral and ethical values, students are involved in various extension activities such as blood donation camps, helping rural school children etc.

**Employable and life skills:** Job oriented add on programs, talks on soft skills like CV preparation, email etiquette, communication skills, team building, leadership qualities, time management skills were organized to the student community.

**Better career options:** Placement cell organizes regular meetings with student mentors, in turn they are provided with information regarding scholarships for higher education. Library In – charge screens news papers and magazines every day and places the information regarding career options on the notice board. Career guidance is provided on one to one basis by mentors, placement and training cell, and guest speakers from industry.

**Community orientation:** During annual Eco-week program students from nearby villages were invited to the institution to create awareness about latest developments in science and technology. They are enlightened by providing information about

environment and biodiversity. Saplings of endemic and endangered plants were distributed to people around and explained them about the importance of plant protection and conservation.

**1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?**

The student and alumni database has been established and regularly updated. Regular feedbacks are collected from the faculty, students, academic peers and industry experts. The inputs from the feedbacks are used to update and enhance the curricula by designing add on programs and skill development workshops. By the industrial initiative and students' feedback we introduced a bridge course at the beginning of the semester. This bridge course orient students and helps in recollecting fundamentals both in theory and practical's which is otherwise difficult to accommodate in regular curriculum.

**1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?**

To ensure the quality of the programs, IQAC plays an important role. IQAC along with academic heads meet regularly to monitor and evaluate the quality of add on programs and courses. During student exchange programs students from other colleges are trained in specific areas of specialization and their feed backs are collected. These feed backs are analyzed and with the help and guidance of industry personnel the program is evaluated and monitored.

## 1.4 Feedback System

### 1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

The academic committee and research advisory committee has been constituted with industry experts and academicians. The university department heads are also members of these committees. The feedbacks obtained from all the stake holders are as given under:

- Inputs from alumni are of great help, since their job experience enable them to identify the strengths and weaknesses in the curriculum. Their opinion is sought through e-mails, written formats and feed backs during alumni meet.
- An analysis is obtained from academic peers representing various autonomous institutions and other universities during their visit to the institution as invited speakers or as external examiners.
- Since communication with industry is a regular practice either for an industrial visit by our students or job recruitment at the campus, feedback on curriculum is obtained during these interactions.

### 1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

Yes, the Institution has a practice of obtaining feed backs from the students and stakeholders. Feed backs and suggestions received from Alumni, during alumni meets, e-mails and convocation; parents, during annual day, graduation day and

during informal visits; teachers, during regular meetings, student mentor discussions and after the semester; industry, suggestions and feedback are obtained during placement interviews, guest lectures, factory visits, visits to the college by industry professionals, and industrial visits. Google groups is formed and maintained by individual batch students and such groups the faculty are also included.

Feed backs collected from all the stake holders are passed to the IQAC, which analysis it critically. Review meetings were conducted and efforts are made to communicate to the university for during meeting called by BOS and university authorities. Based on the feed backs, revamping of core syllabus was done in the practicals.

**1.4.3 How many new programs/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?)**

Keeping abreast of growing trends and need for the community two post graduate programs viz., M.Sc., in Organic chemistry and M.B.A were introduced. Apart from this with the support of Government of Karnataka Biotech finishing school program targeted towards job orientation is also initiated. In collaboration with KSOU several industry relevant diploma programs were introduced, which will ensure additional skill development.

**Any other relevant information regarding curricular aspects which the college would like to include.**

Students in our college are always encouraged to participate in different social activities having national objectives. The blood donation camps, free medical checkup and hygiene education among rural students, training rural school students and

teachers in different aspects of science education are some of the examples which contribute towards the national development.

During the MBA program, attempt is made to equip the students with skills to improve their employability so that they could contribute to the GDP and economic development of the nation from the very beginning.

#### **Fostering Global Competencies among Students-**

The institution helps students to prepare and face the competition at the global scenario with its different student development activities. We conduct guest talks from experts hailing from various fields of society who communicate the global interests and demands in the present day to students. From this academic year we are streamlining our competitive exam cell to train students and help them become competent enough to appear for exams like CSIR-NET, GATE, ICMR, GRE, TOEFL, DBT, CAT, MAT etc.,

Students are encouraged to participate in national and international seminars/conferences to update their existing knowledge and skills with the changing global situations.

#### **Inculcating Value System among Students-**

We believe in imparting a value based education to all students. The mentor ward system helps in enriching values among students with individual attention. The cultural programs designed and conducted always reflect moral values of the nation. Our students have participated in various programs like disaster management, anti ragging and anti terrorism issues. We also conduct annual eco-week nurturing ethical values towards our environment in students. In order to impart safety values and measures, bio-safety week is conducted.

**Promoting the Use of Technology-**

Our students are made technology enabled by integrating use of latest communication technology devices like computers, LCD, animations and videos, digital library as well as web resources.

All the MBA students are required to have a lap-top and they work on it for the presentation on various topics and assignments.

**Quest for Excellence-**

The institution's long term goal itself is to achieve the center for excellence. We are in the process of realizing this goal by introducing host of value added programs for students, streamlining the administration process, enhancing and enriching the teaching resources and also up gradation of infrastructure to meet global demands.

Innovative practices like curricular design, submission of course plan well in advance, monitoring through completion reports, periodical quiz programs, debates and seminars regarding the latest development in the respective curricula are practiced. The following are the major measures undertaken in this regard in the last five years-

- Feedback mechanism for curricular up-gradation.
- Organizing national and regional seminars/workshops; participation of students in national and international level seminars/symposia.
- Skill development through value added courses.
- Outreach programs for social, environmental and ethical awareness.
- Up-gradation of soft skills through training programs.

- Mentor-ward system and in-house research projects.

**Best practices introduced -**

- 1) Introduction of course plan and other academic monitoring systems.
- 2) Initiating and executing seminar club towards orienting students for latest developments.
- 3) Use of inputs given by industry experts to upgrade curriculum.
- 4) Conducting skill development workshops for students on various topics.
- 5) Bridge course and orientation programs at the beginning of the course.

In future the institution is planning to establish interactive language lab and expand their horizon of value added programs in terms of certificate courses and diploma courses.