

BEST PRACTICE - I

- i. Title of the Practice: Incorporating ICT applications in academic and administrative activities
- ii. Objective of the Practice: ICT is used to achieve the following objectives.
 - To mobilize resources for effective teaching, learning and research experience.
 - For effective management of classroom delivery.
 - To enhance efficiency and transparency in administration.

iii. The Context

The ICT is a powerful and potential tool in teaching and learning. Use of ICT has contributed to the exponential enhancement of knowledge resources; has made pedagogy and delivery of knowledge very effective and added value to the research tools & techniques; and has enhanced administrative efficiency and transparency to a great extent.

iv. The Practice

ICT infrastructure is accessible to all students, teachers and non-teaching staff. The university is continuously extending and upgrading its ICT infrastructure. The use of ICT is evident from the following activities:

- Campus Connectivity: The University provides 7.6 Gbps high speed broad band campus-wide 24x7 network connectivity having optical fiber network and Wi-Fi technologies with over 6397 PCs.
- Learning Resources: The University has 264 e-enabled classrooms equipped with Multimedia LCD projectors. The optimum use of teaching tools like PPTs, simulated presentations, NPTEL Online Video Lectures and MIT/UC Berkeley Open Courseware system, Learning Management System—'Moodle', to facilitate interaction among students and faculty and Internet based aids such as Animations and Demonstrations to aid classroom interaction is facilitated

through the use of ICT. Internet connectivity to the labs, library, faculty chambers, class rooms, hostels etc is provided to create a meaningful academic ambience.

- Efficiency and effectiveness of the e-resources has been greatly enhanced through the application of ICT with the campus wide license for the e-resources (as described in Criterion-VI).
- **E-governance:** Commissioning of Enterprise Resource Planning (ERP) relating to array of academic activities of the students starting from registration/enrollment to the examinations/results ensuring the integrity in each and every process of teaching and learning, accessible to all stakeholders. Moreover, the advanced version of Hospital Information System (HIS) is also implemented in the faculty of medical sciences.
- **Videoconferencing Facility:** This facility of interaction is primarily extended to the Ph.D scholars, faculty and administrative authorities to interact with persons of eminence/ Ph.D supervisors within and outside the country.

v. Evidence of Success

The impact of ICT is conspicuous in increasing the efficiency of classroom delivery and knowledge assimilation among the students. It is evident from the overall performance of the students in the exams. Enrollment of the students, Time Table preparations, Intimation of the assignment topics, Circulation of Lesson plans, Attendance monitoring, Information regarding the schedule of examinations, declaration of results etc. have been streamlined and the utility value has increased manifold through the ICT based ERP applications.

vi. Problems Encountered and Resources Required

The ERP has been introduced in the year 2013 and implemented in 2014. Lack of exposure on the part of faculty and staff in the ERP processes is the major problem. However, efforts are being undertaken to provide them the orientation and training.



BEST PRACTICE - II

- i. Title of the Practice: "Remedial Classes An Initiative for Slow Learners"
- **ii. Objective of the Practice:** The initiative intends to help and enable the slow learners to complete their curriculum beyond the scheduled classroom hours and to provide an additional opportunity to those students who could not appear the end semester examination for lack of requisite attendance.

iii. The Context

These remedial classes are usually taken up with approval of the Deans and HODs of the respective programmes. These compensatory classes usually commence at the onset summer vacation to maintain the continuity of the teaching-learning process. The numbers of classes are usually 80% of the scheduled teaching hours of the normal semester. A maximum of 4 Papers/Courses are permitted to a student during the semester and a student concerned need to have at least 75% of the attendance in these courses.

iv. The Practice

- Evaluation of these remedial courses includes both the internal assessment (midterm examination, assignment, Quiz) and the end-semester examination. The students need to secure required % of marks in the concerned subject.
- No student is permitted for more than 4 remedial courses offered during a semester.
- After the publication of end-semester examination, registration of the remedial classes/courses is announced. The classes commence the beginning of the summer brake and ends before the end of the summer vacation. Students are required to registrar within the stipulated time by paying the required fees.
 Withdrawal from the remedial course is not permitted.

v. Evidence of Success

- The pass percentage of students is quite encouraging compared to that of the regular semester examination.
- The students get an additional opportunity for promotion to the next higher semester by way of meeting the prescribed number of credits.
- These remedial classes offer an opportunity to the students who are otherwise
 ineligible to sit for the examination due to lack of required attendance and are
 otherwise affected by unfortunate circumstances beyond their control e.g. selfillness, death of near and dear ones etc.

vi. Problems Encountered and Resources Required -

- In certain cases, some students who otherwise could have cleared the regular end-semester examination prefer to take this as on alternate route.
- Sometimes some faculty members poise a liberal attitude towards these groups of students.



BEST PRACTICE - III

- i. Title of the Practice: "Faculty Enrichment Initiative"
- **ii. Objective of the Practice**: The initiative aims at broadening the academic horizon of the faculty members and augmenting their knowledge based to foster intellectual growth.

iii. The Context

- In the perspective of changing global educational scenario and rapid advancements in science and technology in a highly competitive context, continuous updation of knowledge in the respective subject domains has now become quite imperative.
- Faculty enrichment initiatives taken by the University intend to address the above needs of the teachers to reorient them to the emerging needs and challenges of contemporary education and research scenario.

iv. The Practice

- The University undertakes several initiatives on training and development mode, organizes continuing medical education (CME) for the faculty of Medical Science, knowledge updation programmes including national and international seminars / conferences and extra mural lectures for Engineering, Science, Management and other faculties with participation of scientists/ professors of eminence from national and international university/institutes of repute.
- Faculty Development Programmes and workshops on important subjects and critical academic topics are organized to enlist participation of faculty members in brainstorming exercises which help contribute to their knowledge domain.
- The University invites eminent academicians and experts of national and international repute as visiting professors to interact and highlight on various academic issues/topics to the benefit of teachers and students.

v. Evidence of Success

- Such initiatives and knowledge development programme help enhancing the
 motivational level of the faculty members and to get better exposure to the
 immerging frontiers of knowledge.
- Such exposures and orientation gained by the faculty members contribute to richness and quality of teaching-learning process as well as research and extension activates.
- These processes have inspired the faculty members, research scholars and postgraduate students to get engaged in quality research and publication activities.

vi. Problems Encountered and Resources Required

- Availability of eminent professors / experts from reputed foreign universities for a particular semester often becomes a constraint.
- Frequency of participation of such distinguished visiting faculties/experts would substantially contribute to the core and quality of these programmes.



BEST PRACTICE - IV

- i. Title of the Practice: Outcome Based Education
- ii. Objective of the Practice:
 - a. To establish clear and well-defined goals of education
 - b. To enhance flexibility through use of innovative teaching pedagogy
 - c. To enhance Student Participation through student centric learning Activities

iii. The Context

To make sure that student outcomes are in line with the vision and mission of the University and thereby in line with the goals of higher education

iv. The Practice

- Graduate Attributes and Student Outcomes have been defined for most programmes. Graduate attributes are in line with
- Advisory Boards (with representatives from academia and industry) have been created either at the Department or Institute Level.
- Outcomes (or objectives) have been defined for subjects offered in the programs for which graduate attributes have been defined.
- Additionally, in some programs, a continuous improvement cycle of outcome satisfaction assessment has been implemented.

v. Evidence of Success

Feedback taken for Final year students in B.Tech Programmes in 2015 indicates an increase of satisfaction of student outcomes over the previous batch (2014)

vi. Problems Encountered and Resources Required

Lack of Familiarity with Outcome based education. In this regard, the workshops by Visiting International Faculty have been conducted.



BEST PRACTICE - V

ii. Title of the Practice: "Participatory Teaching & Learning Process"

vii. Objective of the Practice:

- a) To overcome the weakness of traditional teaching learning processes in order to achieve the goals of Higher Education.
- b) To impart quality teaching and foster accountability in education delivery, to realize academic objectives and adopt teaching practices to produce high-quality professionals.
- c) To enhance Student Participation through student centric learning activities.
- d) To promote innovative teaching methodology and pedagogy.
- e) To orient students towards self-learning and acquisition of skills.

viii. The Context:

To make sure that student outcomes are in line with the vision and mission of Siksha 'O' Anusandhan Deemed to be University and to make the teaching learning process commensurate to the mandate of Deemed University & Higher Education.

ix. The Practice

- Graduate Attributes and Student Outcomes have been defined for most programmes.
- Graduates Attributes form a set of individually assessable outcomes that reflect
 indicative of the graduate's potential to acquire competence to practice at the
 appropriate level which are in line with the mission and vision of Siksha 'O'
 Anusandhan Deemed to be University.
- Circulation of Lesson Plans and teaching modules.
- Learning is made student centric through the adoption of the following participatory learning activities

- Engineering Design, Analysis and Manufacturing Projects
- System Design Projects
- Case Based Teaching / Simulations
- Field trips
- Assignments/Projects/Pilot Studies/Seminars
- For Medical Sciences, Interdepartmental Seminars in Clinical and Para clinical departments
- Group Discussions / Presentations / Animations and Other ICT based Aids
- Thesis/Dissertations
- Participation of Students in extracurricular competitions and social extension activities through student chapters
- Hands on Lab assignments
- Collaboration with Industries and other Universities/Institutes of repute.
- Adoption of modern technology and E-Learning Resources Used as teaching aids
- Audio-Visual facilities in class rooms.
- NPTEL, Coursera, EdX, Moodle
- MIT Open Courseware, UC Berkeley Open Courseware, iTunes U, etc.
- E-Resources such as E Data Bases, E-journals (Scopus, ProQuest, EbscoHost, etc)
- Research Centre and labs and language labs