



Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI BHAGWATI COLLEGE OF ENGINEERING
Harpur Nagar, Umred Road (Near Bada Tajbagh), Nagpur-24
(Approved by AICTE, New Delhi, Govt. of Maharashtra
and affiliated to Rashtrasant Tukdoji Maharaj Nagpur University)
Email: principalpbcoe@gmail.com, Website: www.pbcoe.edu.in
NAAC Accredited



ACADEMIC POLICY



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VISION

To be a leading institution ensuring Academic Excellence, Nurturing Research, Innovation and Entrepreneurial Attitude to produce employable technocrats for service to society

MISSION

1. To be a student centric institute imbibing experiential, innovative and lifelong learning skills, addressing societal problems.
2. To create a conducive ecosystem for Research, innovation & extension services.
3. To inculcate entrepreneurial attitude and values amongst Learners.
4. To Collaborate with Industries and other institutions to strengthen symbiotic relations.
5. To inculcate high ethical and moral values among the students.

Dr. N. K. Choudhari

Principal
Principal

Priyadarshini Bhagwati College of Engg
Umred Road, Nagpur.

Priyadarshini Bhagwati College of Engineering, Nagpur strives to achieve academic excellence, by providing quality education through excellent teaching learning activities and research pursuits and the continuous assessment of the academic activities, so as to empower individual students to evolve as self-reliant citizens of the global village who would cater to the human welfare and sustainability.

Objectives

The academic policy discloses the principles used for quality teaching at Priyadarshini Bhagwati College of Engineering and defines the procedures for the multiple levels of accountability in teaching and learning.

The objective of the policy is to make the guidelines transparent for all activities related to teaching and learning across the campus.

The institute stands responsible for ensuring quality of its educational environment. This includes

1. Academic accountability
2. Ensuring the quality of technical education which includes
 - i. Following the University prescribed curriculum in true spirit as the College is affiliated to RashtraSant Tukadoji Maharaj Nagpur University, Nagpur
 - ii. Planning of effective academic delivery so as to achieve OBE objectives
 - iii. Preparation of the course materials
 - iv. Delivery of course contents adopting appropriate technologies
 - v. Assessment to enable quality.
 - vi Verification and review
 - vii. Continuous improvement through quality assurance.

PART A

Academic Planning and Implementation

1. ACADEMIC PLANNING & MONITORING SYSTEM

(I) Academic Calendar:

It is a document of very high significance. It is prepared by IQAC coordinator/ Dean (academics) in consultation with Principal. The Academic calendar is a fundamental building block which should be followed in the true spirit. In the beginning of the academic session, the students will be apprised of academic calendar and same will be uploaded on college website and shall be displayed on notice boards and at strategic locations. Only Head of the Institute has exclusive right to incorporate minor changes in academic calendar which he may deem fit considering the unforeseen circumstances. The central level college academic calendar is provided by the IQAC coordinator/Dean academics to heads of the department. The heads prepare the departmental academic calendar with activity details. The heads discuss the academic calendar with the faculty members for the departmental implementation by conducting meeting in the department.

(II) Teaching Load Distribution: The teaching load (theory and practical) is appropriately allotted among the faculty members as per the cadre, expertise & specialization. The load distribution sheet is to be duly signed by all the faculty members and head of department.

(III) Time Table: Time table is prepared as per the teaching scheme of RTM Nagpur University and departmental requirement. The time table is circulated among the staff members and displayed well in advance for the students and a copy of the same is to be submitted to dean academics.

(IV) Commencement of Classes: The date of commencement of classes as per academic calendar is to be communicated to the students by Displaying notice on the notice board prior to one month of the commencement.

(V) Student Monitoring:

- The reporting of the students is monitored strictly for the first ten days to ensure regularity of the students. If a student fails to report for the majority of days, the student mentor is required to enquire about his/her absenteeism. The genuineness of absenteeism is to be confirmed from their parents.
- The individual student attendance is to be checked every month. Also, the attendance is communicated to the parents by student mentors/Class Teacher/Academic Coordinator. For the first month, a list of students having poor attendance is communicated to the students and they are advised to improve the attendance.
- All the faculty members are directed to inform the students about the criteria for CAT and Sessional Examination. Academic coordinator, class in-charge and all course teachers should

sincerely keep record of students' performance and display the same to students and also communicate to their parents.

(VI) Teaching Monitoring

- Teaching Plan is to be prepared by individual faculty for the allotted subject. The faculty members are instructed to update the engaged dates in the teaching plan.
- Lesson Plan is to be prepared for each lecture topic and should be available in the class during coverage of topic.
- Class In-charges will keep academic record of all faculty members which include the syllabus coverage, conduction of classes, strength and other academic related issues. The submission of the record should be done fortnightly to Academic coordinator and HOD for the observations for suggestions and improvements.
- Academic report is prepared monthly for all the subjects. The faculty members are asked for the reason for less number of lectures engaged / syllabus coverage or discrepancies if any. The faculty members are asked to take appropriate actions to improve the status.
- Updated academic documents like Lesson Plan, Tutorial Plan, and Subject file, student mentor files and attendance register will be checked by Academic Monitoring Team.

(VII) Academically Weak Students (Slow learner)

- The academically weak students mean those who could not keep pace with the class room teaching and they need extra attention so as to bring such students at par with the rest of the students of the class.
- Institution assesses learning levels of students after admission in first year and organizes special programs for slow learners.

Criteria for identifying academically weak students (Slow learners):

(i) Students having more than 50% backlog in latest declared result of RTM Nagpur University (Theory) examinations.

OR

(ii) Students securing less than 45% (New RTMNU scheme) marks (rounded off to higher integer) in CAT-1 examination.

Measures to be taken for academically Weak Students (Slow learners): (Online/offline Mode)

- Remedial/Extra classes should be conducted with appropriate focus on the subject/topic codes in which students are found to be weak.
- Individual academic counselling & doubt clearing sessions
- Formation of Study group for peer-to-peer learning.
- Personal counselling through student mentoring scheme.

- Maintaining the record of academically weak students and the measures taken to improve the performance.

(VIII) Academically Bright Students (Advanced learners)

Advance learners are the students who are ahead of the curve in terms of learning and who need advanced management and technical skills in order to place themselves at the pinnacle of their profession. These students are all capable of going above and above and accomplishing extraordinary things. However, in order to fully utilize their extraordinary talent and knowledge, they require cutting edge and ground-breaking indications from the instructors and the institute. Therefore, we are making an effort to carve out additional time from our schedule so that we can devote human resources to these students.

- **Criteria for identifying academically bright students:**
 - (i) Top ten scorers in the latest declared result of RTM Nagpur University examination.

OR

(ii) Students securing more than 75% marks (rounded off to higher integer) in CAT-I examination.

Measures for academically Bright Students: (Online/offline Mode)

- Contact sessions for career planning.
- Research paper reading and discussion or seminar on the topic
- Communicating research papers in conferences/Journals
- Guiding the students for GATE/Competitive examination etc. examination.
- Training programs for gaining advanced technical know-how.
- Formation of study groups mentored by bright students.

Measures mentioned are not limited to the above. Department should have a mechanism for suggestions and action plan to implement them.

However, it is important to note that PBCOE as a college does not discriminate between the students. We value our students on equal platform with all human values.

(IX) Capability Enhancement and Development schemes: Following schemes should be implemented for overall development of the students.

- a) Guidance for Competitive examination
- b) Remedial Coaching
- c) Bridge courses
- d) Language lab sessions
- e) Personal Counselling

- f) Career Counselling
- g) Soft skill development
- h) Yoga and meditation
- i) Campus Placement

a) Guidance for Competitive examination

The objectives of this scheme are

- To develop the awareness about competitive examinations such as GATE/CAT /IES / GRE/UPSC /MPSC etc.
- To provide the detailed knowledge about the subjects.
- To develop the technical skills.

Following activities are to be conducted

- Arranging expert lectures by the external / Internal faculty members.
- To help the students to become familiarize with the course curriculum of GATE/IES etc.
- Arrange motivational speeches from government sector officers. Arrange Debate, speech quiz competition at college level.
- Arrange the session on the awareness about competitive exam (GATE, CAT, GRE, TOEFEL, GMAT, Civil services (UPSC, MPSC).

b) Remedial Coaching

The Institute strives to develop specific competencies of the students that may contribute to their academic and professional success. In this context to strengthen their knowledge skills and attitudes in such subjects, where quantitative and qualitative techniques are involved, Remedial classes are arranged for the students to provide the necessary guidance related to the subjects. The Remedial coaching scheme aims at improving the academic skills of the students in the various subjects and raising their level of comprehension in such subjects where qualitative technical and laboratory work is involved and reduce their failure and dropout rate. This scheme is also implemented for Slow learners.

Method of Teaching:

Remedial Classes are organized on working days in the zeroth lecture and after the regular teaching is completed. Remedial classes are completed before the commencement of University exams and model question papers are solved with the students by the respective subject teachers.

c) Bridge courses: Students joining an Engineering program after 10+2 require reinforcement of fundamental science concepts i.e., basic science courses in Physics, Chemistry and Mathematics.

To support the students, gain better understanding, AICTE decided to initiate the task of development of bridge courses in Physics, Chemistry and Mathematics. These bridge courses aim to accelerate the students' knowledge in these subjects acquired at 10+2 level; and also bridge the gap between the school science syllabus and the level needed to understand their applications to Engineering concepts. For the First Year UG Engineering students, bridge course in basic Physics, Chemistry and Mathematics of duration one week will be taken up for the students for the remaining part of the semester. The First Year Department has a flexibility to adopt these modules on bridge courses by adjusting teaching hours accordingly. First Year subject incharges of Physics, Chemistry & Mathematics may prepare the course modules as per AICTE guidelines and seek the approval from Dean academics for the same.

d) Language lab sessions: Good communication skills are indispensable for the success of any professional. The English language, in particular, has become essential in the lives of young people who aspire to advance their careers anywhere in the world. Language learning is not the same as learning any other subject. The four skills of reading, writing, listening and speaking have to be practiced. The language laboratory plays an important role in the language learning process. The language laboratory is very useful for assessing students' speech. It provides students with the technical tools to get the best samples of pronunciation of the language. The electronic devices used in the laboratory will stimulate the eyes and ears of the learner to acquire the language quickly and easily.

Various learning modules are followed for various academic purposes. 1. Learning of Language through Wordsworth Module for the First-Year students

- Prep-1: Beginner- It includes 36 Computer-Based Training Sessions.
- Prep-2: Intermediate- It includes 49 Computer-Based Training Sessions further divided into five types Pronunciation with 14 sessions, Listening skill with 9 sessions and speaking with 5 practice sessions, Reading skill 13 sessions and writing skill 8 sessions.
- Prep-3 : Proficient - It includes total 25 advance sessions on listening, speaking, reading and writing. sessions

2. Self-Centered Learning Scheme: In this scheme, the students practice verbal analogies, Synonyms Antonyms, Self-assessment tests, Cloze tests etc. on their own

3. Incorporating of Advanced Module: Language enrichers for 5th Semester students: It includes 30 Computer-Based Training Sessions.

4. Focus on Special Skills

A) Group Discussion

B) Presentation Skills

e) Personal Counselling:

Personal counselling is provided to students through student mentor scheme. It helps students in addressing their academic and psychological health concerns.

The objectives are:

- To help the students in solving their personal, educational, social as well as psychological problem.
- To develop more positive outlook.
- To assist to regain a sense of control and pleasure in life.

f) Career Counselling: Career Counselling aims to provide assistance and advice to the students regarding their career. It helps the students realize their strengths and weaknesses by instilling self-awareness, decision making skills, planning skills, personality development etc. Through career counselling we organize

- Expert lectures by senior corporate executives and visiting professors.
- The awareness program to make them aware about different schemes for financial aid, academic planning, entrance examinations etc.
- Seminars and guest lectures on personality development, communication skills, leadership skills etc.

g) Soft skill development

The Institute has a pool of ideas due to the current trends in the industry, expectations, and student requirements. The goal of the institute is to constantly improve in order to meet and exceed the expectations of both the industry and the students. The Institute designs a training program that is open to all engineering students at all levels, with the goal of helping them acquire the fundamental skills needed in the workplace, including effective leadership, creative problem-solving, communication, and personal management.

h) Yoga and meditation: Yoga and meditation is the key to healthy and happy life. Yoga and meditation helps to focus on mental and physical health of students. It will contribute in the self-development of students. It also addresses the working stress if any and provides the opportunities for social engagement. The Yoga and meditation is responsible for not only maintaining physical health of students and employees but also ensures the mental/psychological and emotional elements.

Following programs are organised under Yoga and meditation

- Celebration of International Yoga day.
- Spritual and motivational talks
- Spiritual activities such as Ganesh Pooja etc.
- Sports & Cultural Events

- Guest lectures for health awareness by renowned experts

i) Campus Placement

The goal of the training and placement cell is to improve placement through productive and mutually beneficial relationships with businesses and professional associations. Additionally, to collaborate with other associations and sectors and operate effectively and efficiently in order to help students get placed. The institutions have made an effort to produce qualified personnel with the requisite technical expertise.

Every year training program (Campus Recruitment Training) has been conducted for pre final year (6th Sem) students in collaboration with external agencies. .

- T & P cell regularly conducts technical lectures, career development programs; guest lectures on personality development, resume writing, group discussions and interviewing techniques and provides other inputs to make the students employable and acceptable.

X. Meetings of stakeholders

- All programs have identified Parents, Students, Faculty, Alumni and Industry Personnel/Employers etc. as valued stake holders. A regular meeting is conducted with them.
- One of the primary objectives of the meeting is to make the stakeholders aware of vision and mission of the Departments/Institute, to inform them about all the policies & programs of the Institute and events planned & conducted regularly. Structured feedback from all the stakeholders should be taken for continuous improvement in the system.
- An endeavour shall be made in the meeting to develop and maintain meaningful relations with the stakeholders so as to rope them into the specific scheme of objectives of the institute.

Every Department organizes one or two meetings in a year for all the stake holders. Meetings can be scheduled in the beginning/middle/end of semester or end of academic session depending on the requirements. The schedule of the stake holders' meeting is decided by the departments or as per the academic calendar.

PART-B

Teaching-Learning & Evaluation

1. TEACHING LEARNING PROCESS

Objectives:

The objectives of the teaching-learning process are multifaceted and aimed at providing students with a comprehensive education that prepares them for successful careers in engineering. Here are some key objectives:

Knowledge Acquisition:

Develop a strong foundation in engineering principles, theories, and concepts.

Acquire knowledge in engineering disciplines such as civil, mechanical, Information technology, electronics & communication, computer science, etc.

Critical Thinking and Problem-Solving:

Foster critical thinking skills to analyze and solve complex engineering problems.

Encourage students to apply theoretical knowledge to real-world situations.

Practical Skills Development:

Provide hands-on experience through laboratories, workshops, and projects to develop practical skills.

Foster competence in using engineering tools, equipment, and software relevant to the field.

Communication Skills:

Enhance communication skills, including technical writing and oral presentation abilities.

Prepare students to effectively communicate engineering ideas and solutions to diverse audiences.

Teamwork and Collaboration:

Promote teamwork and collaboration through group projects and activities.

Develop interpersonal skills essential for working in multidisciplinary engineering teams.

Ethical and Professional Values:

Inculcate ethical values and a sense of responsibility in engineering practice.

Promote awareness of the social, environmental, and ethical implications of engineering decisions.

Innovation and Creativity:

Encourage creativity and innovation in problem-solving and design.

Provide opportunities for students to explore and implement novel engineering solutions.

Research and Lifelong Learning:

Cultivate a research-oriented mind-set and an appreciation for lifelong learning.

Equip students with the skills to stay updated on emerging technologies and advancements in their field.

Global Perspective:

Foster a global perspective by exposing students to international engineering standards and practices.

Develop an understanding of the global impact of engineering solutions.

Career Readiness:

Prepare students for successful careers by aligning the curriculum with industry requirements.

Facilitate internships, co-op programs, and industry collaborations to enhance practical exposure.

Adaptability and Resilience:

Develop adaptability and resilience to cope with rapid technological changes in the engineering field.

Inculcate a mind-set of continuous improvement and the ability to learn from failures.

Entrepreneurial Skills:

Foster an entrepreneurial mind-set and provide students with the skills to innovate and potentially start their ventures.

Environmental and Social Responsibility:

Promote awareness of environmental and social impacts of engineering projects.

Encourage sustainable and socially responsible engineering practices.

Professional Development:

Provide resources and opportunities for professional development, including memberships in professional engineering organizations.

Assessment and Feedback:

Implement effective assessment strategies helps to gauge student learning and provide timely feedback for improvement.

By addressing these objectives, our colleges aim to produce graduates who are not only technically proficient but also possess the necessary skills and qualities to contribute positively to society and the engineering profession.

Following innovative teaching learning methods (Table-1) may be implemented.

Table-1: Creative teaching learning methods

S.N.	Learning Methods	Implementation Process
1.	Collaborative/Participative Learning	Group Discussion
		Case Studies
		Projects
		Presentation by students
2.	Experiential/Field Learning	Practical Learning
		Field Learning through i) Industrial visits ii) Internships iii) Training programs iv) Real world Examples
3	Problem Solving Learning/Self Learning	Tutorials
		Assignments

4	Use of ICT tools	Use of MOOCS/ Institute LMS, NPTEL Videos Video Lectures etc
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1) Collaborative/Participative learning: This covers case studies, projects, group discussions, and practical group leadership. Students can easily engage with one another and share their opinions, ideas, and experiences through participatory learning, which also increases students' interest in what they are studying.

2) Experiential / Field Learning: By organizing industrial tours and practical instruction, students gain practical expertise through advanced technology internships and training programs. Additionally, students are exposed to the latest technology.

3) Problem Solving Learning: Tutorial classes are useful for enhancing the problem solving and analytical skill of the students.

4) Use of ICT Tools:

Teachers can employ a variety of ICT tools to enhance the interactive nature of their instruction. Students can cultivate a self-learning habit by utilizing MOOCs and NPTEL courses.

In actuality, many strategies are blended based on demands, conditions, and scenarios. Teachers are free to adapt their lesson plans to fit the dynamics of each student group as well as their own teaching style. Practical projects are a component of the curriculum and promote student participation in the learning process.

Modern teaching tools, a supportive learning environment, a proactive commitment to ensuring students' general academic wellbeing and the institute's goal and mission are all part of the student-centric learning process.

The following steps are followed for effective Teaching learning process.

(I) Process for effective curriculum/ course delivery

(i) Teaching of a course will confine to the study scheme as prescribed by RTM Nagpur University Nagpur from time to time. A course will have four/five teaching units.

- HoD should allocate the subjects to the faculty well in advance and in a transparent manner.
- Course teachers are expected to prepare a Course File as per defined format provided.
- Updated Course File should have Latest Syllabus, Program Outcomes, Program specific outcomes and Course Outcomes, CO-PO(s), CO-PSO(s) Mapping & Attainment, Teaching Plan, Tutorial Sheets, Lesson Plan, Academic calendar, Time Table, Class Assessment Tests Question Bank, Question Papers & Solutions with Marking scheme, Assignments, University Question Papers, Sessional examination question papers & Solutions with Marking scheme,

Question bank, Questions from competitive examination may be included in Questions Bank, Teaching notes (Hard Copy), University Question Papers Solutions, Advanced topics planned and execution details, details of weak & bright students, Teacher's Assessment tools, Course end Survey. Result Analysis and List of Books.

(ii) The course teacher prepares teaching plan, lesson plan, and tutorial plan as per policies and guidelines of the Institute and Department so as to give justice to every component of the course.

- Teaching-Learning deliverable will include periodic assignments to the students on the component of the syllabus taught.
- Remedial Classes shall be conducted for academically weak students of the class. The course teacher will teach some topics which are beyond syllabus.
- The Teaching-Learning process should make use of Experiential learning. Participative learning and Problem-solving methodologies like real life examples/technological issues, visit to industries etc. for enhancing learning experiences. Subject Notes /PPT(s) are to be made available to the students.

(II) Adopting cutting edge technology

The department should place a strong emphasis on adopting cutting-edge teaching and learning techniques in addition to traditional ones (using online mode)

- To enhance the students' understanding of the course, expert talks on a variety of topics should be arranged.
- Experts talks from IITs and NPTEL speakers are available for video lectures.
- It is recommended to utilize information and communication technology (ICT) for effective teaching learning process. MOOCS are utilized as a powerful educational tool. It is also recommended to employ learning management systems (LMS), e-learning resources, etc.
- The course instructor visits the relevant industry with students to provide them hands-on experience with the material. It is necessary to arrange conferences, workshops, seminars, and tech fests in order to keep students' knowledge updated.
- Students may be exposed to seminars on current issues. Peer learning can occur in the form of study groups for courses.
- Demonstration of practical application should be given for disciplines without a practical component in the university curriculum. There may be a technical quiz or surprise test depending on the curriculum for a few core courses.
- Supporting slow and advanced learners and the efforts are made to improve their performance.

- To help students prepare for competitive exams like GATE, a study forum may be established and experts with relevant experience may deliver seminars.

(III) Conduction of Add on/Certificate/value added courses

To complement the conventional teaching, the department must conduct Add on programs, Certificate Courses, Value added courses as per the requirement. Students and teachers are encouraged to register for NPTEL courses, MOOCS.

(IV) Academic Records

Academic Records of students is a very important document. The course teacher is responsible for meticulously maintaining the attendance record and making sure that all pertinent information is timely entered as per the guidelines.

- The AEC reports to be submitted to the Dean of Academics on a Fortnightly or monthly basis should match the course teacher's attendance record.
- It is important to keep track of any extra, makeup, remedial, and classes covering topics outside of the syllabus.
- At the conclusion of each month, the average attendance of all students will be displayed. Parents should be informed and the list of students with attendance below 50% should be put up on the notice board.
- In addition to providing guidance to the pupils, the teacher-guardian should keep a record of the students' progress and notify the parents of it.

(V) Student Evaluation Methods

Student evaluation shall consist of direct evaluation methods which will comprise of all internal examinations for theory, practical/laboratory, project etc.

Direct Assessment consists of internal assessment and University Exam assessment. Methods of Internal Assessment for theory comprise of assessment of CAT-I, CAT-II, Activity, Teacher Assessment, and Sessional Examination. Teachers' Assessment of a student includes online quiz, assignments, / Surprise Test/ Participation in college level cocurricular/extracurricular events, online certificate courses/ Internships/ Participation in intercollegiate events/ Case studies/Subject based Presentation/Research paper analysis.

Following guidelines have to be followed for conducting online quiz:

1. Google Classroom is to be used for conduction of quiz.
2. Quiz has to be conducted by the subject teacher after the completion of each unit. Subject teacher has to prepare 10/15 multiple choice/ short answer questions based on the topics taught in a particular unit.

3. Time limit of ten to twenty minutes will be set for the quiz.
4. Each quiz will have a weight-age of 20 marks.
5. Quiz should be disabled after the given time limit.

Methods of Internal Assessment for practical/laboratory comprise of practical performance in lab (online Mode, virtual labs etc.) and its record (Journal), Viva-Voce, Teacher Assessment and Practical Exam.

Methods of Internal Assessment for Project are based on individual & team performance parameters.

(VI) CO and PO Attainment Process

- Course outcomes should be defined using Bloom's Taxonomy..
- Objective is to evaluate the student performance and to find whether the COs are attained for the particular course and POs and PSOs are attained for the program using

CO Attainment Process:

- Attainment level is set on the basis of previous result of the subject or average result of university exam.
- For each course, depending on the percentage of students achieving the set target, the attainment level of Cos (Low, Moderate, High) is decided.

PO Attainment Process:

- Direct Assessment method as stated above.
- Indirect Assessment to calculate the attainment of POS and PSOs includes –
 - 1) Curricular and Extra-Curricular activities feedback
 - 2) Alumni feedback
 - 3) Exit Survey
 - 4) Employer's feedback
 - 5) Industrial Training feedback

2. QUALITY ASSURANCE

(I) Quality Assurance Initiative

Quality assurance initiatives includes but not limited to the following.

- Involvement of external expert in project evaluation.
- PPTs validation from external expert
- Academic Audit carried out by Internal & External experts.
- . Industry based projects
- Faculty development programs

- Practical performance for students through Virtual Lab Developing Creative Lab, Industry supported lab, Incubation centre and Research lab etc.
- MOUS for exchange of technical know-how, value addition,
- Professional Societies chapter formation and conduction of technical activities.
- Involvement of Stakeholders as partners in growth.
- Best practices
- Innovation and Creativity in teaching learning.
- Academic Audits

(II) Quality improvement initiative through laboratory experiments

It's been suggested that practical knowledge is a prerequisite for becoming a competent engineer. As a result, the department's primary goal must be to provide high-quality practical instruction. Virtual labs, app-based labs, video recordings of practical performances, software-based practicals, and other online resources should be used (wherever applicable) to improve students' practical exposure.

- Manuals for laboratories, experiments, and machines should be available in every laboratory. Students will be given access to laboratory resources for the purpose of conducting experiments.
- A few creative experiments should be included in every course that include a practical component.
- The course teacher must create the Practical Teaching plan in consultation with the lab in charge.
- Students should perform the experiments offline/online and verify the results from the course teacher. Viva voce to be conducted on each practical for award of the grade/marks accordingly.
- The department ought to arrange for extra hours of practical instruction to make up for the absence of students during normal sessions.
- Taking feedback from students about the conduction of practical

3. POLICY ON CONTINUAL ASSESSMENT

- Policy on continual assessment focuses on the PEVRA (Plan, Execute, Verify, Review, Action) approach where in the students shall be offered a window of equal opportunity to improve their performance on a continual basis.
- Direct evaluation method comprises of internal examinations held progressively during the semester and is designed to check and report the periodic performance of the student. Internal assessment for theory comprises of two class assessment tests (CATs), activity, teacher assessment and one session end examination.

- To improve the quality of question papers questions of standards are set by the subject teachers for all internal examinations. All Internal examination question papers and assignment questions are aligned with Bloom's taxonomy.
- Descriptive / Objective type questions are to be set on 50% syllabus for CAT-1 and CAT-2.
- Descriptive / Objective type questions are to be set on whole syllabus for Sessional Examination.
- The slots of the CAT- I, CAT-II, Assignment-1, Assignment-II and Sessional examination are mentioned in the academic calendar and the modus operandi of the same shall be finally decided by Heads of Departments in consultation with the office of the Principal, Dean Academics and IQAC coordinator. Examination schedule of CAT & Sessional will be announced and displayed in advance by the departments.
- Students who remain absent in examination will be permitted for Re-examination as per the procedure decided by the department. This provision is made for situation in which the absence is due to reason of illness, death of a near kin, attending of state or national level competitive exam, placement activities and other circumstances beyond control of the student.
- The students will submit two assignments each based on 50% of the syllabus. Grades A and B are awarded on the basis of the content correctness.
- Students will follow academic calendar for the submission of assignments.
- All the records and data bank of attendance in internal Examinations, Question papers, valued answer sheets, summary of marks sheets, and display of marks should be properly maintained for academic monitoring/academic audit.
- Result of the semester examinations should be analysed subject wise by the departments within 8 days of the declaration of the results/ as per the schedule given in academic calendar and the concise report in the prescribed formats should be sent to Dean (academic).
- Records of the students appearing for GATE/Other Competitive examinations should be maintained and the result should be analysed to know the success rate and the performance of the students. The concise report should be sent to the Dean (academics) latest by the 10th day of declaration of the result in the prescribed format.

4. ANALYSIS OF ATTENDANCE

- **For Odd/Even semesters:** An analysis of monthly attendance shall be made from the start of academic session. For students having below 60% attendance their parents will be communicated about the same.
- **Policy on Grant of Attendance:** Students as participants in inter/intra collegiate events may be granted attendance for the limited period during which they were preoccupied in their roles as functionaries/participants.

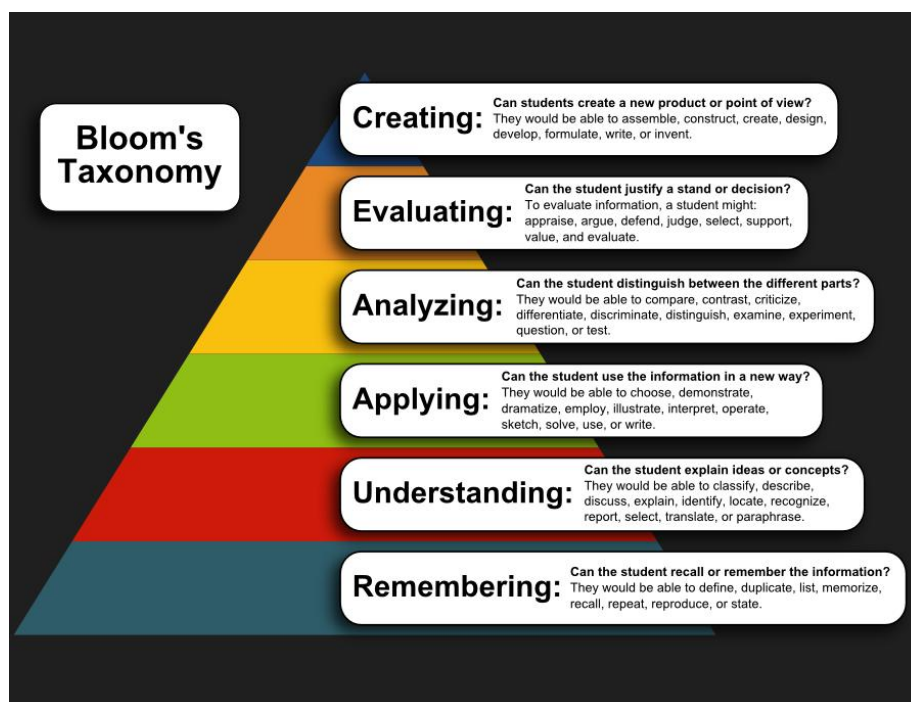
Minimum 75% attendance is expected to appear in the tests and sessional examination. HoD(s) can permit the students having attendance less than 75% for specified reasons. Attendance will be granted for the period of the related activity/event. The concerned Deans / HoD(s)/Teacher in charge of the activity/event shall mention the period for which the attendance be granted.

5. EXAMINATION POLICY:

A systematic policy is framed to implement outcome-based education. The approach used is to start with Program outcomes (PO's) and move on to Course Outcomes (COs) and outcome of individual learning experience. Each level's results must complement and be in line with the program's objectives. Exams and student assessments are crucial in determining the quality of education. In addition to evaluating students' accomplishments (and grades), they also need to determine whether the intended learning objectives have been met. The accomplishment of goals and program results is essential and must be demonstrated by trustworthy evaluations. It is highly challenging to measure and observe the POs in real time at the course level.

Bloom's Taxonomy for Assessment Design:

Bloom's Taxonomy offers a valuable framework for developing curriculum and instructional strategies as well as relevant exam questions that correspond to different cognitive levels. By intentionally aligning the curriculum and testing with these levels, programs might strive for higher-level skills that go beyond memorization and comprehension and necessitate application, analysis, evaluation, or creativity. In line with the updated Bloom's taxonomy the levels in the cognitive domain are as follows:



While using Bloom's taxonomy framework in planning and designing of assessment of student learning, following point need to be considered:

1. Normally the first three learning levels; remembering, understanding and applying and to some extent fourth level analysing are assessed in the Continuous Internal Evaluation (CIE) and sessional Examinations (SEE), where students are given a limited amount of time.
2. Abilities; analysis, evaluation and creation can be assessed in extended course works or in a variety of student works like course projects, mini/ minor projects, internship experience and final year projects.

Using Scoring Rubrics as Assessment Tool: There are three components within rubrics namely

- (i) criteria/performance Indicator: the aspects of performance that will be assessed,
- (ii) descriptors: characteristics that are associated with each dimension,
- (iii) scale/level of performance: a rating scale that defines students' level of mastery within each criterion.

7. Evaluation scheme for Continuous Internal Assessment (CIA):

Methods of assessment of PO's and CO's

CO attainment is measured in terms of actual percentage of students getting set (target) percentage of marks. If targets are achieved, then all the course outcomes are attained for that year. If targets are not achieved, the Programme put in place an action plan to attain the target in subsequent years.

The attainment levels are set considering average performance levels in all examinations throughout the semester or year. Attainment level is measured in terms of student performance in internal assessments with respect to the COs of a course and the performance in the University examination.

Attainment levels are stated in terms of percentage of students getting more than the targeted average marks. The assessment is carried out by both direct and Indirect methods. Assessment Tools, process, and levels for CO attainment used are given in below

Direct Assessment Tools used:

- **Internal Assessment**

(30% weightage is given to internal assessment in direct assessment tools)

- i) **Class Assessment Test**-This type of performance assessment is carried out during the examination sessions which are held twice a semester. Each test is focused in attaining the course outcomes.

- ii) **Sessional Examination**-Sessional examination is a metric for assessing whether all the COs are attained or not. Examination is more focused on attainment of course outcomes and program outcomes using a descriptive exam.
- iii) **Project Evaluation**- Project review seminars are conducted twice in a semester and are evaluated by internal and external evaluators.
- iv) **Laboratory Assessment**- Each experiment is assessed by the subject teacher on different parameters like performance of experiment and oral questions. Grades are assigned to each experiment based on continuous assessment.
- v) **Activity**: Online certificate courses/ Participation in intercollegiate events/ Case studies/ Subject based Presentation/Research paper publication or analysis & any other activity of similar type
- vi) **Teachers' Assessment**: Assignment + Online Quiz/ Surprise Test/ Participation in college level co-curricular/extracurricular events)
 - **University Examination**: (70% weightage is given to University assessment in direct assessment tools)

The attainment level is specified in terms of high (level 3), medium (level 2) and Low (level 1). These three levels are distributed as follows depending on the percentage attained for mapping.

Level 3	60% or more scoring target marks
Level 2	50 -60% scoring target marks
Level 1	Less than 50% scoring target marks

Indirect Assessment tools used

Feedback from the stake holders in the form of survey and feed back

- i) **Course exit survey**: At the end of each semester, course exit survey is conducted to analyse all course outcomes.
- ii) **Program Exit survey**: This survey is conducted at the end of B. Tech. Program to analyse all the program outcomes and program specific outcomes.
- iii) The indirect assessment also contains feedback from various stakeholders such as **parents, alumni, faculty, student employer** along with exit survey.

The overall CO attainment is the weighted average of direct and indirect attainment and the ratio used is either 70%-30% or 80%-20% respectively.

Evaluation scheme for Continuous Internal Assessment (CIA)

For Credit Courses

1. CAT-I (Class Assessment Test-I)
2. CAT II (Class Assessment Test-II)
3. Sessional Examination
4. Activity (Online certificate courses/ Participation in intercollegiate events/ Case studies/ Subject based Presentation/Research paper publication or analysis & any other activity of similar type)
5. Teachers' Assessment (Assignment + Online Quiz/ Surprise Test/ Participation in college level co-curricular/extracurricular events).

Mapping of Course Outcomes with Assessment Tools

Subjects having 5 units

Direct Assessment Method	Course Outcomes				
	CO1	CO2	CO3	CO4	CO5
University Exam	√	√	√	√	√
CAT-I	√	√	√		
CAT-2			√	√	√
Sessional	√	√	√	√	√
Activity	√	√	√	√	√
Teachers' Assessment	√	√	√	√	√

Subjects having 4 units

Direct Assessment Method	Course Outcomes			
	CO1	CO2	CO3	CO4
University Exam	√	√	√	√
CAT-I	√	√		
CAT-2			√	√
Sessional	√	√	√	√
Activity	√	√	√	√
Teachers' Assessment	√	√	√	√

DISTRIBUTION OF THEORY INTERNAL MARKS UNDER ASSESSMENT TOOLS

a) For 30 marks

Assessment	Course	CAT -1	CAT-2	Sessional	Activity	Teacher Assessment	Total
Total Marks	U.G	35	35	70	10	20	
Converted Marks		4	4	8	10	4	30

b) For 15 marks

Assessment	Course	CAT -1	CAT-2	Sessional	Activity	Teacher Assessment	Total
Total Marks	U.G	20	20	40	5	20	-
Converted Marks		3	3	5	2	2	15

Notice : Minimum two assignment in each subject are be given to the students by the subject teacher.

DISTRIBUTION OF PRACTICAL INTERNAL MARKS

OVERALL % DISTRIBUTION OF MARKS					
Assessment	Journal	Practical Performance	Teachers' Assessment	Viva	Total
Total Marks	10	5	5	5	25

For Journal :

Highest grade should be given 10 marks followed by decrease in marks as per the grade.

Grade A = 10 Marks

Grade B = 9 Marks

Grade C = 8 Marks

Grade D = 7 Marks

Evaluation scheme for Continuous Internal Assessment (CIA)

For Audit Courses

1. Assignment 1/ CAT 1/Activity 1
2. Assignment 2/ CAT 2//Activity 2
3. Sessional Examination
4. Teachers' Assessment (Online Quiz/ Surprise Test/ Participation in college level co-curricular/extracurricular events).

Mapping of Course Outcomes with Assessment Tools

Subjects having 4 units

Direct Assessment Method	Course Outcomes			
	CO1	CO2	CO3	CO4
Assignment 1/ CAT 1/ Activity1	√	√		
Assignment 2/ CAT 2/ Activity 2			√	√
Sessional	√	√	√	√
Teachers' Assessment	√	√	√	√

DISTRIBUTION OF THEORY INTERNAL MARKS UNDER ASSESSMENT TOOLS

For 50 marks

Assessment	Course	Assignment1/ CAT 1/ Activity1	Assignment2/ CAT2/ Activity2	Sessional	Teacher Assessment	Total
Total Marks	U.G	20	20	40	20	-
Converted Marks		10	10	20	10	50

8. STUDENTS AND FACULTY FEEDBACK

Students feedback have a vital role in the development of programs. Students' feedback is considered to introduce innovative practices & improve teaching learning process.

(a) Students' Feedback of Faculty on Teaching Learning Process

Feedback in the standard format is taken by Dean Academics, LTJSS online through ERP once in a semester. Signature of faculty is obtained on the individual feedback reports by head of the department. Necessary corrective action is suggested if required. Corrective action taken is communicated to the office of the Principal.

(b) Students' Exit survey

Students' exit survey is conducted for the final semester students in the standard format by the departments. The impact analysis is carried out and a brief report regarding the corrective action taken at the department level and action to be taken at the central level is submitted to the office of the Principal/Dean (Academics).

(c) Faculty Appraisal Form

The faculty appraisal forms will be collected by the Departments from Registrar and the completed forms with the remarks/endorsement of the Head of the Department should be sent to the office of the Principal after declaration of result of Summer examination.

(d) Course Result Analysis

Result of the semester examinations is analysed course-wise by the departments within 8 days of the declaration of the results and a concise report in the prescribed format is sent to Dean (Academic) on or before 10th day of declaration of the result.

The result analysis for the course is carried out and the brief report regarding the corrective action taken at the department level and action to be taken at the institute level will be submitted to the office of the Principal/Dean (Academics). If required, meeting with individual teachers is organized. In case of very poor performance letters are issued.

e) Teachers feedback on curriculum

Feedback in standard format is collected from course teacher after completion of semester. The compiled department wise report is prepared along with appropriate suggestions and submitted to University for consideration.

9. POLICY FOR PROJECT WORK IN THE FINAL YEAR OF THE COURSE

The engineering-related concepts and knowledge that students have learned over the course of four years of study must be applied through some practical practice. As a result, each student must complete a project in the final year of the course using the concepts and knowledge they have learned. As a result, when the seventh semester begins, students begin working on projects in designated groups.

Each student's topic of interests are taken care of by the department, which also gives students the freedom to form groups based on their own interests. It is recommended that they adhere to the four-to five-student group member restriction. The list of guides along with their specialization is displayed on the notice board at the end of sixth semester.

A group of students approach the guide for the consent and submit the application to the project coordinator of the department at the end of sixth semester.

OR

A group of students submits the application to the project coordinator of the department at the end of sixth semester with preferences of Guides and previous semester's university scored marks.

- Project Coordinator should prepare the merit list of the project groups as per the policy of the department and submit it to HoD(s). HoD/Academic Coordinator/Project Coordinator/Guide/Student should finalize the project group.
- The project coordinator displays the list of project groups with their selected/allotted guides.
- In the due course of time students carry out the literature review about their area of interest and identify the scope of work by deciding the topic in consultation with the guide. The projects should be industry oriented, application, product, research, review etc.
- The project may have analytical approach in respective discipline area or interdisciplinary domain.
- Students have to submit the synopsis of their proposed work to the project coordinator.
- The project coordinator organizes the project defining seminar where the students have to present their topics before the project review committee. The committee scrutinizes the work on the basis of various project parameters like -
 1. Feasibility study of the project
 2. Title of the project & Scope of work
 3. Application of the work
 4. Approach to accomplish the proposed work etc.
- Progress seminars are conducted as per schedule in academic calendar, wherein the students present their progress of the work before the project review committee. The committee evaluates their work with respect to the following rubrics:
 1. Understanding the background and topic/Content of the progress report or seminar
 2. Knowledge about existing system/Literature Review
 3. Technical design and findings of the system/technical content
 4. Presentation skills
 5. Viva voce (Individual/group)

The parameters mentioned above are for general guidelines; however, they may vary from department to department. The departments should ensure that the evaluation is done at individual and group levels.

- The project review committee gives valuable suggestions to carry on with the decided project. A project guide maintains record as per the defined format and the students meet their guides from time to time for guidance.

- The project coordinator provides guidelines for writing the final project report and the students are expected to submit it to the department within the stipulated time frame. Plagiarism report and publications should be attached with all project reports. For Industry based project, work completion certificate of industry should be attached.
- The department must keep up the tradition of organizing a project exhibition in which the best project is awarded

Impact Analysis of Project Work: After completion of the project work, the students develop the capacity to handle real life problems, However Some Prominent points about the impact are discussed:

- Students develop an ability to handle the live projects in real world problems.
- Some of the students won different prizes at IITs and National Level institutes.
- Some students presented their research papers on their proposed work at International and National Conference.
- Acquired an ability to work in groups.

The expected outcome of the project is that the students present their projects at IIT's and National Level institutes.

Qualitative norms of the project include but not limited to the following:

1. Publication/presentation in conferences/journals
 2. Participation in Project/poster competition
 3. Networking with intelligence
- Distribution of seventh semester Project seminar and eight semester projects marks: As mentioned in internal marks distribution policy.

10. GUIDELINES FOR STUDENTS OFFERED TRAINING/INTERNSHIP WITH RECRUITING COMPANIES

Industry Internship is an integral part of the academic curricula. Internships are educational and career development opportunities, providing practical experience in a field or discipline.

- Internships may be offline/online during the academic session.
- If a student is offered offline/ online training/internship of a prescribed duration by a company during the period of academics, then it becomes necessary for the Institute to help such student for his/her future prospects.
- She/he will be allowed to join the internship/training program, provided following guidelines are followed by students:

1. If the college timings are beyond online/offline training program timings, then he/she will report to college compulsorily for attending theory/ practical classes.
2. In case of online/offline training being provided by hiring company for 5 days in a week, then a student has to report to college on working Saturdays for practical/project work.
3. Attending online lectures (if any) beyond college hours.
4. It will be the sole responsibility of a student to complete the academic assignments.
5. If any student fails to follow the instructions/ norms laid by the institute, he/she will be solely responsible for the academic loss during a particular academic session.

11. POLICY ON CO-CURRICULAR AND EXTRA-CURRICULAR ACTIVITIES

Institute level

There shall be at least two events at the institute level. It will consist of at least one technical event, cultural events/sports etc. Other events like workshops, Entrepreneurship Development Cell activities will be conceived, planned, organized, executed and participated by the students of all the branches. The students of other colleges can also participate in the event.

Department level

The student forum of each department should plan, organize curricular or co-curricular and extracurricular activities/events of their interest/relevance and provide platform for the students. These activities/events should be strictly carried out in a way that the teaching of the other departments does not get hampered. If in the events other department or college students required to participate then permission head of department / Principal office is mandatory. They should be part of planning, execution and discipline in the campus. Head of departments and Registrar along with the Event In-charge(s) should ensure the discipline of the students during execution of events.

12. INDUSTRIAL VISITS: Industrial visit/ Industrial tour/Field visit should be planned as prescribed in the University curriculum. The department should follow the guidelines provided in the standing order of the sanstha.

13. CODE OF CONDUCT

Professionalism is highly valued at LTJSS in general and Priyadarshini Bhagwati College of Engineering in particular. This is seen by the written and implicit codes of ethics and conduct that are widely recognized. Adherence to the institute's code of conduct and code of ethics is an inherent duty for all stakeholders, both internal and external.

At PBCOE, we firmly think that a breakdown in discipline leads to the end of human existence. We humbly implore all of our esteemed stakeholders to join us in constructing a magnificent nation by exercising the highest discipline. We have established grievance redressal committees that will

actively work to ensure that students receive justice in all respects. We guarantee that there won't be any injustices done to the pupils; all wrongs will be rightfully corrected. We make a great effort to provide them with all of our unwavering love, care, and compassion.

Code of conduct for students:

- The student should follow the policies of the college in true spirit.
- Students should wear the college Id card and College Uniform.
- Students should have minimum 75 % attendance to appear for university exam.
- Students must respect teaching and non teaching staff within and outside premises.
- Students must pay the stipulated fees in a given span of time.
- Students must report the change in communication address if any.
- Smoking, chewing tobacco, consuming alcohol or any drug is strictly prohibited in college campus.
- Students are to move towards the classroom / laboratories and occupy their seats before scheduled time.
- Only authorized persons can enter the classroom during working hours.
- Students should avoid wondering on the verandahs, during class hours.
- Students should move from one class to another without causing any inconvenience to others.
- Students should maintain dignity and decorum in all common gatherings.
- Students should read information displayed on the notice-boards so as to get updates about various activities.
- Students should not to tamper any notice displayed.
- Students are responsible to keep the campus clean. They should further keep the campus litter- free. Our campus is “Smoke-Free and Plastic-Free.
- Under the Educational Rules of the Government, students involved in anti-social activities are liable to be fined, suspended, and expelled.
- Under the Educational Rules of the Government, students resorting to ragging in any form within and outside the campus will be expelled from the college.
- Decency demands that students are not involved in any kind of wild, noisy and disturbing behavior during celebrations.
- Racing the vehicles or use of vehicles with defective silencers are not permitted.
- Use of mobile phones is prohibited inside the college classrooms and laboratories .Use of cell phones within the classrooms will invite severe punishment.
- Be scrupulously honest in all academic activities and with all the stakeholders of the institute. Be attentive, fair and cooperative towards your teachers and peers in various academic and

non-academic activities. Practice empathy and sharing towards your fellow citizens and care towards your surroundings.

- Students are expected to use the social media carefully and responsibly. They cannot post derogatory comments about other individuals from the Institution on the social media or indulge in any such related activities including cyber bullying, or any other activity on social media which may have grave ramifications on the reputation of the Institute.

Code of conduct for teachers:

Teachers should

- Follow all the existing policies of the sanstha
- Discharge their professional responsibilities according to the existing rules and adhere to procedures and methods consistent with their profession in initiating steps through their own institutional bodies and/or professional organizations for change of any such rule detrimental to the professional interest.
- Refrain from undertaking any other employment and commitment including private tuitions and coaching classes which are likely to interfere with their professional responsibilities.
- Co-operate in the formulation of policies of the institution and discharge responsibilities which such offices may demand.
- Adhere to a responsible pattern of conduct expected of them by the community.
- Manage their private affairs in a manner consistent with the dignity of the profession.
- Seek to make professional growth continuous through study and research.
- Express free and frank opinion by participation at professional meetings, seminars, conferences etc. towards the contribution of knowledge.
- Maintain active membership of professional organizations and strive to improve education and profession through them.
- Perform their duties in the form of teaching, tutorial, practical, seminar and research work consistently and with dedication.
- Co-operate and assist in carrying out functions relating to the educational responsibilities of the college and the university such as : assisting in appraising applications for admission, advising and counseling students as well as assisting the conduct of university and college examinations, including supervision, invigilation and evaluation.
- Participate in extension, co-curricular and extra-curricular activities including community service.
- Respect the right and dignity of the student in expressing his/her opinion

- Deal impartially with students regardless of their religion, caste, political, economic, social and physical characteristics.
- Recognize the difference in aptitude and capabilities among students and strive to meet their individual needs.
- Encourage students to improve their attainments, develop their personalities and at the same time contribute to community welfare.
- Treat the non-teaching staff as colleagues and equal partners in a cooperative manner.
- Help in the function of joint staff-councils covering both teachers and the nonteaching staff.
- Try to see through teachers' bodies and organizations, that institutions maintain contact with the guardians, their students, send reports of their performance to the guardians whenever necessary and meet the guardians in meetings convened for the purpose for mutual exchange of ideas and for the benefit of the institution.
- Be affectionate to the students and not behave in a vindictive manner towards any of them for any reason.
- Aid students to develop an understanding of our national heritage and national goals.
- Refrain from inciting students against other students, colleagues or administration.
- Treat other members of the profession in the same manner as they themselves wish to be treated.
- Speak respectfully of other teachers and render assistance for professional betterment.
- Refrain from lodging unsubstantiated allegations against colleagues to higher authorities.
- Refrain from allowing considerations of caste, creed, religion, race or sex in their professional endeavor.
- Put maximum efforts for the betterment of students community.
- keep them updated in their respective fields.
- Maintain the harmony within the department and campus and try to imbibe.
- Use of mobile phones is prohibited inside the college classrooms and laboratories.

Code of conduct for parents


Parents should

- Be in continuous touch with the mentors, class teacher and HOD.
- Parents must ensure fulfillment of all academic requirements as per institution and university by their wards.
- They should attend parents meet and give proper feedback for the betterment of the system


Code of conduct for Alumni

All pass out students should

- Register themselves as a member of college alumni association.
- Share their expertise with the students of this Institute.
- Give feedback for the improvement of the system.
- Attend the alumni meet as and when invited and give their valuable suggestions.



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