Academic Policy

PART-A Academic Planning & Implementation

1. ACADEMIC PLANNING & MONITORING SYSTEM

- (I) Academic Calendar: It is a document of sacrosanct nature. It is prepared by the Dean (academics) in consultation with the Principal and Heads of Departments. The Academic calendar is a fundamental building block that will be strictly adhered to. At the beginning of the academic session, the students will be apprised of the academic calendar, which will be uploaded on the college website and displayed on notice boards and at strategic locations. Only the Head of the Institute has the exclusive right to incorporate minor changes in the academic calendar which he may deem fit considering the unforeseen circumstances. The college academic calendar is provided by the Dean (academics). The academic calendar will be discussed for the departmental implementation by meeting in the department.
- (II) Teaching Load Distribution: The teaching load (theory and practical) is appropriately allotted among the faculty members per the cadre, expertise & specialization. The load distribution sheet is to be duly signed by all the faculty members.
- (III) Timetable: The timetable is prepared according to the teaching scheme of RTM Nagpur University and departmental requirements. It is circulated among staff members and displayed well in advance for the students.
- (IV) Commencement of Classes: The date of commencement of classes as per the academic calendar is to be communicated to the students using Displaying a notice on the notice board prior to one month before the commencement.

(V) Student Monitoring:

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

Inform the students.

(VI) Teaching Monitoring

- The 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.
- A Lesson Plan is to be prepared for each lecture topic and should be available in the class during coverage of the topic.
- Class In-charges will keep academic records 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 fortnightly to the Academic coordinator for his observations and HoD 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 the Teaching Plan, Subject file, T.G. files, and attendance register will be checked by the Academic Monitoring Team.

(VII) Academically Weak Students (Slow learners)

- The connotation of academically weak students means those who cannot keep pace with the classroom teaching need extra attention to bring such students on par with the rest of the students in the class.
- The institution assesses the learning levels of students after admission in the first year and organizes special programs for advanced and slow learners.
- Criteria for identifying academically weak students (Slow learners):
- (i) Students securing less than 40% (old RTMNU scheme)/ 45% (New RTMNU scheme) marks (rounded off to higher integer) in CAT-1 examination.

Measures to be taken for academically Weak Students (Slow learners):

- (i) Remedial/Extra classes should be conducted with an appropriate focus on the subject/topic codes in which students are found to be weak.
- (ii) Individual academic counseling & doubt clearing sessions.
- (iii) Formation of Study group for peer-to-peer learning.
- (iv) Personal counseling through mentoring scheme/Teacher guardian scheme.
- Maintaining the record of academically weak students and the measures taken to improve their performance.

(VIII) Academically Bright Students (Advanced learners)

• Those students who are ahead on the learning curve and require advanced technical and managerial know-how to position themselves on the highest pedestal of their careers. Such students have all the caliber to push the

limits and achieve something extraordinary. However, it is important that they need cuttingedge and breakthrough clues from the teachers and the institute without which their exceptional caliber and intelligence will remain precariously unexploited. Hence we attempt to take some extra time out of our routine which can be humanly invested into such students.

• Criteria for identifying academically bright students:

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

• Measures for academically Bright Students:

- 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.

The measures mentioned are not limited to the above. The department should have a mechanism for suggestions and an action plan to implement them.

However, it is important to note that PCE as a college does not have an iota of discriminating attitude towards our students. We value all our students on an equal platform with all human values.

(IX) Capability Enhancement and Development Schemes:

The following schemes should be implemented for the overall development of the students.

- i) Guidance for Competitive examination
- ii) Remedial Coaching
- iii) Bridge courses
- iv) Language lab sessions
- v) Personal Counseling
- vi) Career Counseling
- vii) Soft skill development
- viii) Yoga and meditation

ix) Campus Placement

i) Guidance for Competitive examination

The objectives of this scheme are

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

The following activities will be conducted

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

ii) 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 reducing their failure and dropout rate. This scheme is also implemented for Slow learners.

Method of Teaching:

Remedial Classes are organized on working days after the regular teaching is completed for a duration of a minimum of 10 days. Remedial classes are completed before the commencement of University exams and model question papers are solved with the students by the respective subject teachers.

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, and gain a better understanding, AICTE decided to initiate the task of developing bridge courses in Physics, Chemistry, and Mathematics. These bridge courses aim to accelerate the students' knowledge in these subjects acquired at the 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, a 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 the flexibility to adopt these modules on bridge courses by adjusting teaching hours accordingly. First-year heads of the Physics, Chemistry & Mathematics Departments may prepare the course modules as per AICTE guidelines and seek the approval from Dean, (First Year) for the same.

iv) 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: Basic- It includes 24 Computer-Based Training Sessions.
- Prep-2: Intermediate- It includes 39 Computer-Based Training Sessions further divided into two types Listening with 20 separate sessions and speaking with 8 practice sessions.
- Prep-3 Use of Life Skills

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

Incorporating of Advanced Module in Language Lab for 6th Semester students: It includes
 Computer-Based Training Sessions further divided into 11 Listening sessions and 8 Speaking sessions.

4. Focus on Special Skills

A) Group Discussion

B) Presentation Skills

v) *Personal Counseling:* At times our usual ways of handling problems aren't working for some reason and we feel stuck! The Counseling and Testing Cell (CTC) aims to provide individual, group, and family counseling to assist students and faculty members in addressing their academic

And psychological health concerns. The objectives are:

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

Strategies of Implementation:

The counseling and testing cell involves the process of Initiation, the Middle part of the session, and Termination. The highlights of the implementations are as follows:

- Rapport Building (mainly to deal with the guarded behavior).
- Supportive counseling focused on the ventilation of thoughts and emotions.
- Administration of various psychological tests if needed (post history taking) for a thorough understanding of the client's current mindset.
- Planning of the therapeutic sessions with the client.
- Anger and stress management.
- Relaxation techniques. (E.g., breathing exercises and muscle relaxation)
- Termination of the session and feedback of the therapy by the client.

Students can avail the benefit of Counseling as per the schedule prepared in every session.

- vi)*Career Counseling*: Career Counseling aims to provide assistance and advice to students regarding their careers. It helps the students realize their strengths and weaknesses by instilling self-awareness, decision-making skills, planning skills, personality development, etc.
- To provide career guidance & counseling, expert lectures by senior corporate executives and visiting professors will be organized by the Career Counseling Cell.
- Cell will also organize an awareness program to make them aware of different schemes for financial aid, academic planning, entrance examinations, etc.
- Cell will also arrange seminars and guest lectures on personality development, communication skills, leadership skills, etc.

vii) Soft skill development

The current industry trends, expectations, and student requirements have always created a pool of thoughts for the Institute. Institute always tries to deliver better to cater to and fulfill both, industry and student's expectations. The Institute organizes a training program for all engineering students for all years to develop core competencies required for the industry such as communication skills, leadership skills, creative thinking, problem-solving skills, personal management, the ability to work in teams or groups leadership effectiveness, etc.

viii) Yoga and meditation: Yoga and meditation the part of the Health and Happiness Cell. The main objective of of Health and Happiness Cell is to put a focus on the mental and physical health of students so that they will contribute to the development of their own and the Institute as well. Its other objectives are to address working stress if any and to provide opportunities for social engagement. The health and happiness cell is responsible not only for maintaining the physical health of students and employees but also ensures the mental/psychological, and emotional elements.

The following programs will be organized by this cell throughout the session

- Art of Living
- Yoga & Meditation.
- Sports & Cultural Events such as traditional day celebrations etc.
- Guest lectures for health awareness by renowned experts

ix) Campus Placement

Training and placement cell has the objectives of having fruitful and mutually beneficial linkages with industries and professional organizations for enhancing placement. Also, to work effectively and efficiently and to liaise with various industries and associations for providing placement assistance to the students. The institution has endeavored to develop competent human resources with the necessary technical skill

- Every year a week training program (CRT) will be conducted for pre-final year (6th Sem) students.
- T & P cell will regularly conduct technical lectures, career development programs; guest lectures on personality development, resume writing, group discussions, and interviewing techniques and provide other inputs to make the students better employable and acceptable.

9. MEETINGS OF STAKEHOLDERS

- All programs have identified Parents, Students, Faculty, Alumni Industry Personnel/Employers, etc. as valued stakeholders. A regular meeting is conducted with them.
- One of the primary objectives of the meeting is to make the stakeholders aware of the vision and mission of the Departments/Institute and 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 review of the syllabus.

- An endeavor shall be made in the meeting to develop and maintain meaningful relations with the stakeholders to rope them into the specific scheme of objectives of the institute.
- Every Department should organize one or two meetings in a year for all the stakeholders. Meetings can be scheduled at the beginning/middle/end of the semester or end of the academic session depending on the requirements. The schedule of the stakeholders' meeting is decided by the departments or as per the academic calendar.
- In the meeting their suggestions are noted. The action plan is prepared based on feedback analysis.
- The report of the meeting indicating the brief minutes of the meetings, the time-bound actions proposed by the department, and the actions expected to be taken at the institute level should be submitted to the IQAC office within a week after the meeting. The action plan in this respect should be subsequently prepared by the IQAC Coordinator in consultation with IQAC members. The action taken report has to be put in the meeting of the College Development Committee (CDC) for approval and necessary suggestions.
- Action taken reports approved by the CDC are to be implemented by all the departments scrupulously and the records are to be maintained.

PART-B Teaching-Learning & Evaluation

1. TEACHING LEARNING PROCESS:

Objectives:

- Taking the teaching and learning process out of the classroom and making it more interesting and anytime exercise at learners' speed and convenience.
- To use alternate teaching techniques supplementing the traditional chalk-and-talk method.
- Develop the ability among students to present and analyze specific themes and evaluate what they have learned, to "mature" their thought processes and improve practical skills.
- For the effective delivery of courses and enhancing the learning experiences of students following methods (Table 3) may be implemented.

Table 3: Creative teaching-learning methods

Sr. No.	Learning Methods	Implementation Process

1	Participative Learning	Google Classroom			
		Projects			
		Case Studies			
		Group Discussion			
		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			

1) Collaborative/Participative learning

This includes Group discussion, practical conduction in groups, projects, and case studies. Through participative learning, students can interact with each other and share their views/thoughts/ experiences with ease, which also enhances student's learning interests.

- 2) Experiential / Field Learning: Through planning of practical conduction, Industrial visits, Internships, and training programs on advanced technologies students get practical knowledge. Students also get exposure to the latest technologies used by the industry.
- **3) Problem-Solving Learning:** Tutorial classes are useful for enhancing the problem-solving and analytical skills of the students.
- 4) Use of ICT Tools: Different ICT tools can be used by Teachers to make teaching and learning more interactive. The habit of self-learning is developed among students by using MOOCs/ NPTEL Courses.

In practice, different approaches are combined by requirements, circumstances, and situations. Teachers may design their teaching strategies by their style plus the dynamics of a group of students. Projects and Practicals are part curriculum and also lead to participative learning.

The student-centric learning process aims to use state-of-the-art teaching aids, a conducive

teaching-learning ambiance, a proactive approach to ensure the overall academic welfare of the students, and the attainment of the vision and mission of the programs and that of the institute at large.

- (i) Teaching of a course will be confined to the study scheme as prescribed by RTM Nagpur University Nagpur from time to time. A course will have four/five/six teaching units comprising theory, practical, and tutorial the case may be.
- HoD(s) 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 the 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 Plan and execution dates, 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 the Marking scheme, Question bank, Questions from a 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, List of Books available in the library, etc.,

(ii) The course teacher will prepare a teaching plan, and tutorial plan as per policies and guidelines of the Institute and Department 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 that are beyond the syllabus.
- The Teaching-Learning process should make use of Experiential learning, Participative learning, and Problem-solving methodologies like real-life examples/technological issues, visits to industries, etc. for enhancing learning experiences.
- Subject Notes /PPT(s) are to be made available to the students.
- (iii) To complement the conventional teaching methods, the department should also emphasize following innovative teaching-learning methods (using online mode)
 - Expert lectures are to be organized for various subjects to improve the know-how in the

Course.

- Video lectures of experts from IITs, and NPTEL lecturers can be availed of.
- The teachers should make use of ICT (Information and Communication Technology), and MOOCS for effective teaching. Learning Management System (LMS), e-learning resources, etc. should also be used.
- Visit of course teacher with students to the related industry for practical exposure to the subject.
- Conferences, Workshops, seminars, and Tech Fests are to be organized to update the knowledge of students.
- Seminars may be delivered by the students on the latest topics.
- Study groups for courses can be formed for peer-to-peer learning.
- Practical demonstration for the subjects that are not practical in the university scheme.
- Technical quiz/Surprise test based on the syllabus of some of the core subjects may be conducted.
- Assisting weak & bright students (slow and advanced learners) and efforts taken for them.
- For the preparation of GATE & other competitive examinations, a study forum may be formed and classes may be conducted by expert faculty.

Tutorials are to be conducted unit-wise for numerical and design-based subjects to improve analytical skills.

(iv) 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 to be encouraged to register for NPTEL courses, and MOOCs.

(v) Academic Records

- Attendance register must be maintained scrupulously by the course teacher, ensuring timely entry of all relevant information already prescribed in the Attendance register.
- Fortnightly/ Monthly AEC reports submitted to the Dean (Academics) should conform with the attendance register of a course teacher.
- Record of Extra classes, Makeup classes, Remedial classes, and classes for topics beyond syllabus should be maintained
- Average Attendance of all the students to be displayed at the end of every month.
- The List of Students having attendance below 40 % should be displayed on notice board and be communicated to the parents.
- Teacher-Guardian should counsel the students and also inform the parents regarding progress of the student and maintain the record.

(vi) 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 quizzes, assignments, / Surprise Tests/ Participation in college-level curricular/extracurricular events). Teachers' assessment can also include Online certificate courses/ Internships/ Participation in intercollegiate events/ Case studies/ Subject based Presentations/Research paper analysis.

The following guidelines have to be followed for conducting online quizzes:

- 1. Google Classroom is to be used for the conduction of quiz.
- A quiz has to be conducted by the subject teacher after the completion of each unit. The subject teacher has to prepare 10/15 multiple choice/ short answer questions based on the topics taught in a particular unit.
- Methods of Internal Assessment for practical/laboratory comprise of practical performance in lab and its record (Journal), Viva-Voce, Teacher Assessment, and Practical Exam.
- Methods of Internal Assessment for Projects are based on individual & team performance parameters.

(vii) CO and PO Attainment Process

- Bloom's Taxonomy is to be used for defining Course Outcomes.
- The 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 based on previous result of the subject or average result of university exams.
- 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.
- The attainment target level should be set based on average of the previous 03 years' values.
- Every year there should be an incremental increase in set target attainment values.
- 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

2.1 Quality Assurance Initiative

Quality assurance initiatives include but not limited to the following.

- Involvement of external experts 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 center, 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

2.2 Quality improvement initiative through laboratory experiments

- (i) It is said that a person cannot become a competent engineer without practical knowledge. Hence, the department must always focus on the qualitative conduction of practical of subjects. To enhance the practical exposure of the students, Virtual labs, App based labs, Video recording of Practical performance, Software based practical and other online resources are to be used (In case of online).
- Every laboratory to have standard operating procedure, Laboratory Manuals/Experiment Manuals/Machine Manuals. For experiment purpose, laboratory resources to be made available to the students.
- All course teachers engaging practical should incorporate few innovative experiments.
- Practical Teaching plan has to be prepared by Course Teacher in coordination with Lab In charge.
- Students should perform the experiments offline/online and verify the results from the course teacher. Offline/Online viva-voce to be conducted on each practical for award of the grade/marks accordingly.

- The department should care for those students who were absent in regular practical slots by conducting their practicals in extra hours.
- Taking feedback from students about the conduction of practicals.

3. POLICY ON CONTINUAL ASSESSMENT

- Policy on continual assessment focuses on the PDCA (PLAN, DO, CHECK, ACTION) approach where the students shall be offered a window of equal opportunity to improve their performance continually.
- The 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.
- Questions are to be set on whole syllabus as per RTMNU Examination pattern for Sessional Examination.
- Moderation of all question papers is to be carried out through centralized moderation process by internal and External experts.
- The slots of the CAT- I, CAT-II, Assignment-I, 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.
- Assessment of Assignments should be done by the respective subject teachers based on Viva/ Presentation/ Flip classroom etc.
- 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 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 the 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 analyzed subject wise by the departments within 8 days of the declaration of the results and the concise report in the prescribed formats should be sent to Dean (academic) on or before 10th day of the declaration of the result.
- Records of the students appearing for GATE/Other Competitive examinations should be maintained and the results should be analyzed 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 the academic session. For students having below 60% attendance, their parents will be communicated about the same.
- Policy on Grant of Attendance: Students as functionaries/participants in inter/intra collegiate events may be granted attendance for the limited period during which they were preoccupied in their roles as functionaries.
- Minimum 75 % attendance is expected to appear in the tests and sessional examination. HoD(s) can permit the students to have attendance less than 75%. 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.
- **Regarding provisionally admitted Students:** Proper care should be taken about the academic record of the provisionally admitted students.

6. EXAMINATION POLICY:

In outcome-based education, a "design down" process is employed which moves from POs to Course Outcomes (COs) and outcomes for individual learning experiences. Outcomes at each successive level need to be aligned with, and contribute to, the program outcomes. Examinations/student assessments play a very important role in deciding the quality of education. They must not only assess student's achievements (and grades) but also measure whether the desired learning outcomes have been achieved. The achievement of objectives and program outcomes Are crucial and need to be proven through accurate and reliable assessments. Real observability and measurability of the POs at the course level are very difficult.

Bloom's Taxonomy for Assessment Design:

Bloom's Taxonomy provides an important framework to not only design curriculum and teaching methodologies but also to design appropriate examination questions belonging to various cognitive levels. Conscious efforts to map the curriculum and assessment to these levels can help the programs aim for higher-level abilities that go beyond remembering or understanding and require application, analysis, evaluation, or creation. According to revised Bloom's taxonomy, the levels in the cognitive domain are as follows:

Level	Descriptor	Level of attainment
1	Remembering	Recalling from the memory of the previously learned material
2	Understanding	Explaining ideas or concepts
3	Applying	Using the information in another familiar situation
4	Analyzing	Breaking information into parts to explore understandings and relationships
5	Evaluating	Justifying a decision or course of action
6	Creating	Generating new ideas, products, or new ways of viewing things

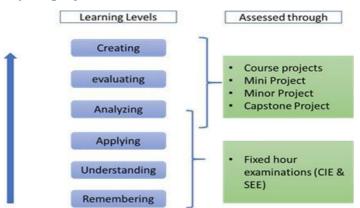


While using Bloom's taxonomy framework in planning and designing of assessment of student learning, the following points need to be considered:

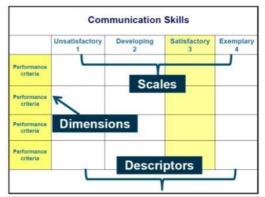
1. Normally the first three learning levels; remembering, understanding, and applying, and to some extent fourth level analyzing are assessed in the Continuous Internal Evaluation (CIE) and Semester End Examinations (SEE), where students are given a limited amount of time.

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, and (iii) scale/level of



Performance: a rating scale that defines students' level of mastery within each criterion.

Examples of Rubrics (Accessed from Rogers 2010)

7. Evaluation scheme for Continuous Internal Assessment (CIA)

- 1. CAT-I (Class Assessment Test-I)
- 2. CAT II (Class Assessment Test -II)
- 3. Sessional Examination
- 4. Activity: Activities mentioned in the RTMNU syllabus (if any)/ Online certificate courses/ Internships/ Participation in intercollegiate events/ Case studies/Subject-based Presentation/Research paper analysis & any other activity of similar type.
- 5. Teachers' Assessment: Online Quiz+ Assignment/ Surprise Test/ Participation in collegelevel
- 6.
- 7.
- 8. cocurricular/extracurricular events/ Case studies/Subject-based Presentation.

Mapping of Course Outcomes with Assessment Tools

Subjects having 6 units

	Course Outcomes						
Direct Assessment Method	CO1	CO2	CO3	CO4	CO5	CO6	
University Exam	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
CAT-1	\checkmark	\checkmark	\checkmark				
CAT-2				\checkmark	\checkmark	\checkmark	
Sessional	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Teachers' Assessment	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	

Subjects having 4 units

Direct Assessment Method	Course Outcomes					
	CO1	CO2	CO3	CO4		
University Exam	\checkmark	\checkmark	\checkmark	\checkmark		
CAT-1	\checkmark	\checkmark				
CAT-2			\checkmark	\checkmark		
Sessional	\checkmark	\checkmark	\checkmark	\checkmark		
Teachers' Assessment	\checkmark	\checkmark	\checkmark	\checkmark		

Subjects having 5 units

Direct Assessment Method	Course Outcomes							
	CO1	CO2	CO3	CO4	CO5			
University Exam	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			
CAT-1	\checkmark	\checkmark	$\frac{1}{2}$					
CAT-2			1∕2 √	\checkmark	\checkmark			
Sessional	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			
Teachers' Assessment	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			

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 20 marks

Assessment	Course	CAT-1	CAT-2	Sessional	Teacher Assessment	Total
Total marks	U.G	40	40	80	20	
Converted Marks		4	4	8	4	20

c) For 15 marks (with Activity).

Assessment	Course	CAT-1	CAT-2	Sessional	Activity	Teacher Assessment	Total
Total marks	U.G	20	20	35	10	20	
Converted Marks		3	3	5	2	2	15

d) For 15 marks (without Activity).

Assessment	Course	CAT-1	CAT-2	Sessional	Teacher Assessment	Total
Total marks	U.G	20	20	35	25	
Converted Marks		3	3	5	4	15

Note: Minimum two assignments in each subject are to 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:

The highest grade should be given 10 marks followed by a decrease in marks as per the grade.

Grade A = 10 Marks; Grade A⁻ =9 Grade B = 8 Marks; Grade B⁻ =7 Grade C = 6 Marks; Grade C⁻ =5 Grade D = 4 Marks

In the case of Online Practical Evaluation: 15 Marks on the Objective-based online Test & 10 Marks for Viva.

8. STUDENT AND FACULTY FEEDBACK

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

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

Feedback in the standard format is taken by Dean Academics, LTJSS online once a semester. Remarks on feedback are conveyed to the head of the department for necessary corrective action. 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 the Registrar and the completed forms with the remarks/endorsement of the Head of the Department should be sent to the office of the Principal by the last working day of each academic session.

(d) Course Result Analysis

Result of the semester examinations is analyzed 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 the Dean (Academic) on or before the 10th day of the 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, meetings with individual teachers are organized. In case of very poor performance letters are issued.

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

The knowledge and concepts related to Engineering acquired by the students in four years of the course have to be implemented in the form of some practical work. Hence in the last year of the course, every student has to do a project work by applying the acquired concepts and knowledge. Therefore, at the entry of the seventh semester, the student initiates project work with a defined group.

- The department cares about the research and topic interest of each student and it offers flexibility to the student for the formation of groups according to their choice of particular interest. However, it is advised them to follow the limitation of group members (four to five students per group). The list of guides along with their specialization is displayed on the notice board at the end of the sixth semester.
- A group of students approach the guide for consent and apply to the project coordinator of the department at the end of the sixth semester.

OR

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

- The 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 an analytical approach in the 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 based on 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 the academic calendar, wherein the students present their progress of the work before the project review committee. The committee evaluates their work concerning 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 a 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 reports and publications should be attached to all project reports. For Industry based projects, a work completion certificate of the 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 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 IITs and National Level Institutes.

Qualitative norms of the project include but are 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 project marks: As decided by Hod(s) and senior faculty of the department.

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 in the final year 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 prospects.
- She/he will be allowed to join the internship/training program, provided the following guidelines are followed by students:
- 1. If the college timings are beyond online/offline training program timings, then he/she will report to the college compulsorily to attend theory/ practical classes.
- 2. In case of online/offline training being provided by a hiring company for 5 days 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 society of each department should plan, and organize curricular or co-curricular and extracurricular activities/events of their interest/relevance and provide a 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 are required to participate then permission from the Dean (Academics) for Co-curricular Activities and the Dean (SC) for Extra-curricular / Registrar /Principal office is mandatory. They should be part of planning, execution, and discipline on the campus. Dean (SC) and Registrar along with the Event Incharge(s) should ensure the discipline of the students during execution of events.

12. INDUSTRIAL VISITS (As per the availability)

13. VISITING / ADJUNCT / EMERITUS FACULTY This provision facilitates:

- Involvement of Industry persons / academic experts/ Emeritus professors in teaching Learning and research.
- Understanding applications of the subjects in the industry.
- Knowing the latest technology in the subject/course/program.
- Involving, Adjunct / Emeritus faculty, as a guide for the project

Area of Interaction / Subjects should be identified by the department. The department should also submit the schedule and details to the office. Remuneration will be paid as per norms or decided by the department in consultation with resource persons.

14. AUXILLIARY ACTIVITIES

In order to effectively accomplish the various activities enumerated earlier through sections 1 to 13, the faculty members are required to get involved in supplementary processes such as Industrial visits, participation in training programs outside the institute, and participation in National & International Seminars outside the institute.

The reason for the faculty members to get involved in these activities is directly /indirectly emphasized in articles 1 to 13 of this write-up. However, there is a need to adhere to some administrative aspects of the execution of these activities. These are to be accomplished as per the administrative norms set up by the management. These norms are stated below:

Activities	Details
Industrial Visit	Planning of visit, Approval, and preliminaries points for approval, Agency for providing bus: M/s Sagar Jog Transport Contractor, 41,Bajaj Nagar, Nagpur - 10
Industrial Tour	Permission in principle, Preliminaries, Planning of visits, After approval, etc.
Agreement format for Ph. D.	Guidelines for issuing permission to higher studies during service
Deputation of teaching faculty for training programs	STTP, Seminars, Conferences, Workshops, Industrial Training
Participation in National / International Seminars	Guidelines for participation in National & International Seminars.
Any Other Activities	Departments are supposed to submit proposals time to time as per the requirements of financial aid.

15. CODE OF CONDUCT

The NIETM in particular give the highest importance to professionalism through generally accepted code of conduct and code of ethics which are written and implied. All the internal and external stakeholders of the institute are organically duty-in-bound to adhere to the code of conduct and the code of ethics of the institute in letter as well as in spirit.

We at PCE wholeheartedly believe that the collapse of discipline is the demise of human life. We heartily appeal to all our valued stakeholders to strengthen our hands in building a great nation through utmost discipline. We have set up **grievance redressal committees** which shall actively engage to bring justice to the students in every aspect. Any injustice to the students Shall be redressed effectively and we promise there shall beno miscarriage of justice towards any student. Our students are the architects of this great nation. We strive very hard in our every attempt to nurture them with all our indomitable love care and affection.

Code of conduct for students:

- The students will not disturb the scholastic vibes of the campus by noisy or uncalled for behavior.
- The students will always carry with them college identity card and will humbly produce it whenever asked by the authorities to prove their legitimacy.
- The students will not have loose walk entry into any office, department, class room, library, principal's office etc. They must first seek permission by submitting their official/ personal work in writing before entering.
- The office of the head of the institute is the highest office which students will respect thoroughly and will maintain the vibes of such a high office.
- College uniform is an integral part of the code of conduct without which entry inside the college premises shall be tantamount to an illegitimate one.
- The students must demonstrate manners, etiquette, and professional body language while conducting transactions with the teachers and staff of the college.
- Our language is a mirror image of our culture, upbringing, and character. Students will refrain from abusive, critical, or arrogant language while talking to anybody.
- Chewing tobacco, betel, smoking, or using any narcotic or alcohol is strictly disallowed on the campus. Students are not allowed in the campus under intoxication of any kind.
- Students will not demonstrate directly or indirectly any caste, creed, racial, or gender bias towards anybody this will result in the severest action against the perpetrators of such vicious thoughts.
- Students will refrain from psychological, physiological, and sexual harassment of peer students. Infringement of this will result in severe action as propounded by the IPC code of India.
- Any attempt to rag anybody in any form no matter how mild or heinous it may be, will attract harsh punishment as per IPC code. Please refer to the anti-ragging law of India and the anti-ragging policy at PCE from our website.
- Students will not fall prey to any negative propaganda and vicious campaigning. They will always uphold the spirit of education and brotherhood with each other.
- Students will refrain from any act of violence or verbal face-off of nasty nature.

Code of conduct for teachers:

- Teachers shall strive to attain the highest standards of punctuality, honesty & responsible ethical practices.
- The teachers shall be truthful when making statements about their qualifications and competencies,
- The teachers shall contribute to the development of an open and breflective professional culture.
- The teachers shall treat colleagues and associates with respect, & working together in a very congenial environment.
- Teachers should strictly follow the academic policy and instructions of higher authorities.
- A mentoring system must be effectively implemented.
- Teachers should be good counselors and Facilitators. They should help, guide, encourage, and assist the students to ensure that the Teaching-Learning Process is effective and successful. Value-based education must be their motto.
- Teachers should maintain decorum both inside and outside the classroom and set a good example to the students.
- Teachers should carry out other academic, co-curricular, and organizational activities that may be assigned to them from time to time.
- The teachers must refrain from joining any political party & refrain from making political comments during lectures or discussions with students.
- The teachers must dress decently in formal wear to best suit the dignity of the profession.

