



**Two Week**

**Faculty Induction Program**

**On**

**“Outcome Based Education with assessment and evaluation”**

***From December 6, 2022 to December 17, 2022***



**POORNIMA**  
**INSTITUTE OF ENGINEERING & TECHNOLOGY**

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*302022*

*RAJASTHAN, INDIA*

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### **About Faculty Induction Program:**

The Poornima Institute of Engineering and Technology, Jaipur organized a two-week faculty induction program on outcome-based education with assessment and evaluation from December 5, 2022, to December 17, 2022 (15 days). 51 faculty members from the institution attended, and a total of 17 sessions were held, focusing on several essential areas of OBE and hands-on sessions on CO-PO Attainment, Course File, ICT, and Interactive Teaching Practices.

The induction program consists of sessions on various areas: vision, mission, and outcome-based education; skill India in OBE; implementation of OBE; achieving academic excellence; occupational stress management; the role of the teacher in value-based education; active learning strategies; continuous quality improvement; and systematic pedagogy with constructivism.

### **Objectives of the Faculty Induction Program:**

Faculty induction program is divided into two parts per week, first week's contents related to Outcome based education and implementation at institute and second week's contents related to assessment and evaluation by the faculty members at the institute.

### **Detailed Report**

Planning is a crucial tool for teachers to achieve success. It helps them understand their goals, the long-term impact, and the potential for improvement. Proper planning makes decisions more efficient and accurate, as they consider the long-term effects of the decision. This can lead to significant time and energy savings. For example, creating a lecture plan can transform teaching. The importance of designing is well-known, and teachers can review tools to understand the significance of designing in teaching and learning. The strategy of designing and organizing teaching can be summarized as follows:

1. **Vision, Mission & Outcome Based Education**
2. **Skill India in OBE**
3. **Implementation of OBE**
4. **Achieving Academic Excellence**
5. **Mapping & Attainment of COs and POs.**
6. **Course File Preparation & Rubrics**
7. **Hands on CO - PO Attainment & Course File**
8. **OBE based Teaching Learning**
9. **Occupational Stress Management**
10. **Role of Teacher in Value Based Education**
11. **Continuous Improvement based on PO/PSO Attainment**
12. **Accreditation Process in OBE**
13. **Continuous Quality Improvement.**
14. **Systematic Pedagogy**
15. **ICT for Assessment and Evaluation**
16. **Active Learning Strategies**
17. **Hands on ICT & Interactive Teaching Practices**



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**Day 1: Monday, 5 December 2022**

**Venue: BB-31 Presentation Hall**

**Session-1**

**Timings: 09:30am-12:30pm**

**Program: Inaugural session and Active learning strategies for continuous quality improvement**

The faculty induction program at IQAC began with an informal welcome address by Director/Principal and Chairman Dr. Dinesh Goyal. The formal inauguration ceremony featured Maa Sraswati Vandana Ceremonials. The inaugural session featured speakers and participants, including Registrar and IQAC Convenor Dr. Gautam Singh, Dr. Sama Jain HoD First Year, Mr. Deepak Moud HoD Computer Science Department, and IQAC Coordinator Dr. Mukesh Chandra. Dr. Goyal emphasized the importance of a unique culture at Poornima Institute of Engineering and Technology for achieving vision, mission, excellence, and service. He emphasized the growth of the institution as proportional to the culture adoption, which should be a fluid blend of Clan, Hierarchy, and research and innovation practices. Dr. Goyal also discussed the importance of strategic planning and active learning strategies for continuous quality improvement, emphasizing the pros and cons of each approach and its necessity in current trends.

**Session-2**

**Timings: 1:30pm- 3:00pm**

**Venue: BB-31 Presentation Hall**

**Program: Vision, Mission & Outcome Based Education**

**Speaker: Mr. Deepak Moud, HoD Computer Science Engineering Department, Poornima Institute of engineering and Technology**

Mr. Deepak Moud highlighted the need for world-class research, excellent instruction, and research in particular. He discussed the difference between a vision, which describes where you want to go, and a mission, which describes where you are now, the direction you should be heading in to realize your goal, and the strategy you will use to do so. Additionally, the mission is a blueprint that will get you there, while the vision describes the desired outcome. Mission should be used to determine PEOs (Program Educational Outcomes). The session was fantastic for learning components of outcome-based education, and participant expectations and feedback were excellent.

**Day 2: Tuesday, 6 December 2022**

**Session3**

**Timings: 9:30am- 12:30 pm**

**Venue: BB-31 Presentation Hall**

**Program: Skill India in OBE**



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### **Speaker: Dr. Ajay Maurya, Professor, Computer Science Department**

The important concepts in OBE that Dr. Ajay Maurya focused on were Vision, Mission, Goal Objective, Outcome, Graduate Attributes (GA), POs, COs, and COBs. Student centered is the outcome, and the objective is teacher centered. PEOs outline what graduates are anticipated to acquire at graduation. OBE is the combination of skill, knowledge, and attitude. Employers look for pupils who have the following qualities: discipline, management, life skills, and employability skills. The presentation's conclusion emphasized the importance of teachers serving as facilitators and co-learners and of seeing students as knowledge creators.

### **Day 3: Wednesday, 7 December 2022**

#### **Session-4**

**Venue: BB-31 Presentation Hall**

**Timings: 9:30am-12:30 pm**

**Program: Implementation of OBE**

**Speaker: Dr. Punit Mathur, Invited Speaker**

Dr. Punit Mathur enlightened on implementation and use of OBE. OBE implementation consists of following 10 points-

Point 1: List of POs

Point 2: Describe the POs

Point 3: Level of Bloom's taxonomy

Point 4: The name and code of the course from the created curriculum.

Point 5: COs were created for the course utilizing active verbs from Bloom's taxonomy.

Point 6: Teaching and learning method employed

Point 7: Assessment tools for evaluation that link COs and POs and measure knowledge, skill, and attitude

Point 8: Course and CO level evaluations and grading

Point 9: CO and PO mapping

Point 10: Continuous improvement, outcome-based education and traditional educational approaches.

Dr Mathur gave a talk on the basic need for outcome-based education, its importance and significance. He explained the basic difference between outcome-based education and conventional methods of education. The session was lively with active audience interaction with the speaker.

### **Day 4: Thursday, 8 December 2022**

#### **Session-5**

**Venue: BB-31 Presentation Hall**

**Timings: 9:30am-12:30pm**

**Program: Achieving Academic Excellence**

**Speaker: Dr. Gautam Singh, Professor and IQAC Convener**

Dr. Gautam Singh expressed his view on the following categories in which the technical institutes come under national Importance, about student intake, faculty, number of colleges. Placements have been increased which indicates quality education is being increased yearly. Excellence can be achieved if the following things are maintained like visionary leadership, strategic planning (what we are, where we are,



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how we reach destination), process management, focus on students, stakeholders and staff, organizational performance and focus on the future. Development in the system through academic rigor, academic discipline, placements, internships. These are the important ones to be focused to achieve excellence in the organization. Another important strategy to achieve excellence is to have faculty exchange programs with other universities throughout the world. The session was so wonderful for enhancing Curriculum Deployment Planning teaching and strongly co- relate to the students' learning aspects and expectation and Feedback of participants was very good.

### **Day 5: Friday, 09 December 2022**

#### **Session-6**

**Venue: BB-31 Presentation Hall**

**Timings: 9:30 am-12:30 pm**

**Speaker: Dr. Mukesh Chandra, Professor and IQAC Coordinator**

Dr. Mukesh Chandra focused on Bloom's Taxonomy, Program Educational Objectives, and Programme Outcomes. PEOs are the career milestones that graduates are anticipated to reach a few years after graduating. PEOs must be measurable, appropriate, practical, and reachable. NBA has established Graduate Attributes (GAs), and program objectives should be derived from these GAs. The mapping of PEO & PO and PO & CO is clearer. Regarding Course Outcomes for each course utilizing Bloom's Taxonomy action verbs, too. He calmly responded to every question that was posed by one of the many attendees.

### **Day 6: Saturday, 10 December 2022**

#### **Session-7**

**Venue: BB-31 Presentation Hall**

**Timings: 9:30 am-12:30 pm**

**Speaker: Dr. Sama Jain, HoD, First Year**

**Program: Course File Preparation & Rubrics**

#### **Course File Preparation & Rubrics**

Speaker discussed the course and its content which helped the faculty members to understand the course details clearly. It consists of time table, syllabus copy for the course, course schedule, course/session plan, unit plan, lesson plan, list of POs, Cos, Mappings, list of assessments, assignment sheets, tutorial sheets, rubrics, evaluation strategy, guidelines to study the course, marks list, Photocopy of the best, average and the worst answer sheets, model question papers, teaching/learning aids, course Completion Status, grading sheet for all students. The session was so wonderful for enhancing Curriculum Deployment Planning teaching and strongly co- relate to the students' learning aspects and expectation and. Feedback of participants was very good. Many participants are asked the questions, he patiently answered all the queries raised by participants

### **Day 6: Saturday, 10 December 2022**

#### **Session-8**

**Venue: BB-31 Presentation Hall**

**Timings: 1:30 pm-03:00 pm**



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**Session Coordinator: Dr. Rekha Jain, Professor, Computer Science Department**

**Program: Hands on CO - PO Attainment & Course File**

The practice writing course outputs for a course with blossoming graded levels and accordingly maps COs to POs with levels L, M and H at the planning level. After assessment, calculate achievements using formulas. Calculate results for all COs of the course. Compare the calculated CO with the threshold value given by the department and assign L, M and H levels during the implementation phase. Now compare the planning mapping table with the execution mapping table. If CO has not reached a certain threshold, go back, identify gray areas and develop the necessary action plan for future improvement.

**Day 7: Monday, 12 December 2022**

**Session-9**

**Venue: BB-31 Presentation Hall**

**Timings: 9:30 am-12:30 pm**

**Speaker: Dr. Punit Mathur, Invited Speaker**

**Program: OBE based Teaching Learning**

Speakers focused on teachers' and students' perspectives. It's best to think of them as specific intentions that include steps to take to achieve our goals as teachers. Outcomes describe what the learner will be able to do after completing the course. For each course, 5 learning outcomes must be determined. The course diary must include the following contents: Syllabus, lesson plan, attendance, internal assessment, course diary, weekly self-assessment, student learning results and schedule. Depending on each subject, different teaching and learning methods can be used. The different teaching and learning methods are: Traditional methods, courses or sessions, discussions, seminars, problem-based, IT, MODLE, SWAYAM, etc.

**Day 7: Monday, 12 December 2022**

**Session-10**

**Venue: BB-31 Presentation Hall**

**Timings: 1:30 pm-03:00 pm**

**Speaker: Dr. Ritu Soryan, Professor, PIET, Jaipur**

**Program: Occupational Stress Management**

Dr. Ritu Soryan sheds light on stress, excessive pressure and other types of demands placed on humans. Stress occurs when pressure exceeds resources. There are two types of stress. Positive stress and negative stress. Positive stress can have a positive impact, boosting motivation and cognition, and providing stimulation to cope with difficult situations. Negative stress is a contributing factor in minor conditions. It causes headaches, digestive problems, skin problems, insomnia and ulcers. People are stressed for many reasons such as physical environment (noise, temperature, tight spaces, bright light), daily hassles (communities, incidents, lost keys), lifestyle choices (caffeine, lack of sleep, busy schedule), internal stress. (Negative words, mental traps). Stress can be avoided by developing the nature of positive thinking, getting enough sleep and avoiding negative self-talk.

**Day 08: Tuesday, 13 December 2022**

**Session-11**

**Venue: BB-31 Presentation Hall**

**Timings: 9:30 am-12:30 pm**



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**Speaker: Mr. Udit Mamodiya, HoD Extension Activities, PIET, Jaipur**

**Program: Role of Teacher in Value Based Education**

Teaching is an art. Teaching is a noble profession. This profession is a paid activity, especially one that involves lengthy training and formal qualifications. Teachers expect 100% passes, 100% grades, first class numbers, honors, awards, internships, certificates, social services, etc. The main objective of OBE is to develop students' knowledge, skills and attitudes. Teachers must develop students' knowledge of mathematics, science, technology and engineering. Teachers should improve students' ability to analyze problems, design solutions, use modern tools, communicate and work in groups. Students must have good attitudes towards society, the environment and follow ethics. There are many different roles that teachers have to play in an organization. Teachers must maintain punctuality, dress, know goals, follow teaching materials, and set a practical example to provide a positive influence. Threats, ridicule, discrimination of good, bad, gender, religion, etc. have a negative impact on teachers.

**Day 08: Tuesday, 13 December 2022**

**Session-12**

**Venue: BB-31 Presentation Hall**

**Timings: 1:30 pm-03:00 pm**

**Speaker: Dr. Anil Kumar, Professor, PIET, Jaipur**

**Program: Continuous Improvement based on PO/PSO Attainment**

Dr. Anil Kumar explains that the OBE begins with a clear statement of the knowledge, skills and attitudes that the graduating engineer will be able to demonstrate upon completion of the course. The CO course or subject describes "What the student achieves at the end of the course". Follow Bloom's Taxonomy while preparing the questions. Bloom's Taxonomy has 6 levels. Level 1: Comprehension, level 2: Remember level 3: Application, level 4: Analysis, level 5: Evaluate Level 6: assessment: Create. Assessment tools are divided into two categories. Direct assessment tools and indirect assessment tools. Direct assessment tools are midterm exams, assignments, lab tests, semester exams, seminars, minimum and major projects. Indirect assessment is the end-of-course survey and the graduation survey after graduation.

**Day 09: Wednesday, 14 December 2022**

**Session-13**

**Venue: BB-31 Presentation Hall**

**Timings: 9:30 am- 12:30 pm**

**Speaker: Dr. Dinesh Goyal, Chairman IQAC, PIET, Jaipur**

**Program: Accreditation Process in OBE**

Dr. Dinesh Goyal explained that accreditation is a process in which educational programs or institutions are examined to determine whether they meet certain quality standards. Accreditation is not a rating system but rather an assurance that a program or institution meets established quality standards. The National Board of Accreditation (NBA) is a permanent member of the Washington Accord, an international agreement to standardize engineering education. The institute is classified as level I and level II based on its autonomy and academic status. The benefit of NBA is that students receive quality



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education and better job opportunities. This organization builds brands, continuously improves towards excellence and more. There are many active learning strategies to empower, engage and stimulate the classroom by placing students at the center of the learning process. Some of them are group exercises, cooperative learning, quizzes, think-pair-share, fish in a bowl, etc.

**Day 09: Wednesday, 14 December 2022**

### Session-14

**Venue: BB-31 Presentation Hall**

**Timings: 1:30 pm- 3:00 pm**

**Speaker: Dr. Gautam Singh, Professor, PIET, Jaipur**

**Program: Continuous Quality Improvement.**

The speaker focused on the form of feedback to collect data from different stakeholders, review direct and indirect achievements, actions taken based on the evaluation results of each PO and PSO. Identify weak areas in the program based on analysis and assessment of OP and PSO achievement levels. Some of the areas initiated are remedial classes, workshops, homework, etc. Students who are weak in each area will be identified and advised individually by their advisor. It also requires improving the quality of newspaper publishing, career guidance, training and placement, extracurricular activities, etc.

**Day 10: Thursday, 15 December 2022**

### Session-15

**Venue: BB-31 Presentation Hall**

**Timings: 9:30 am- 12:30 pm**

**Speaker: Dr. Priya Mathur, Professor, PIET, Jaipur**

**Program: Systematic Pedagogy with Constructive Alignment**

Speaker focused on pedagogy, which refers to “the interaction between teachers, students, the learning environment and learning tasks”. This general term encompasses the way teachers and students interact as well as the teaching methods implemented in the classroom. When designing an appropriate curriculum based on outcomes, what knowledge do I want my students to be able to apply after completing the course? A teaching method can be teacher-centered and learner-centered. To make the classroom more interactive, use active learning strategies like flipped classroom activities, TPS activities, and more. Matched assessment method, map verification, and course completion is a unique initiative training program with the motivation that all students will complete the course according to their respective level. Study schedule and be ready to pursue your chosen career. Organize training classes to provide them with intensive support to help them regularly stay on par with their peers and continuously monitor and improve their teaching and learning.

**Day 10: Thursday, 15 December 2022**

### Session-16

**Venue: BB-31 Presentation Hall**

**Timings: 1:30 pm-03:00 pm**

**Speaker: Dr. Anil Kumar, Professor, PIET, Jaipur**

**Program: ICT for Assessment and Evaluation.**

The goal of ICT is effective teaching/learning for all stakeholders, anytime, anywhere. ICT can be used



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to support change and support/extend existing teaching activities. ICT is considered a tool to help teachers create a more student-centered learning environment. The skills of IT teachers are handling hardware, operating software, connecting machines, using secondary memory, demonstrating devices, and convincing power. Praise and appreciation are different. Evaluation is process oriented while evaluation is product oriented. There are various assessment tools such as yes/no, like/dislike, color cards, 1-2-3 fingers, pliers, KWL chart, etc. Plickers is an assessment tool created by a teacher looking for a quick and easy method of assessment. How to test student understanding.

The FIP was filled with knowledge and therefore the session was very informative for all.

**Day 11: Friday, 16 December 2022**

**Session-17**

**Venue: BB-31 Presentation Hall**

**Timings: 09:30 pm- 12:30 pm**

**Speaker: Dr. Priya Mathur, Professor, PIET, Jaipur**

**Program: Active Learning Strategies**

Speakers focused on pioneers, integrators, drivers and defenders. Pioneers love to explore new possibilities. They especially enjoy working with others and generating new ideas. Pioneers help people dream big. Integrators are all about connectivity. They value meaning, enjoy exploring different interpretations or perspectives, and believe that everything has a give and take. Tutors value stability and strive for precision and certainty. They focus on details and are known to bring order out of chaos. They expect others to be prepared. Drivers love challenges. They value competence and especially appreciate a quick and sharp mind. Drivers want others to be smart and fast.

**Day 11: Friday, 16 December 2022**

**Session-18**

**Venue: BB-31 Presentation Hall**

**Timings: 1:30 pm- 3:30 pm**

**Session Coordinator: Dr. Priya Mathur, Professor, PIET, Jaipur**

**Program: Hands on ICT & Interactive Teaching Practices**

Several ICT tools to be used in hands-on classroom teaching. Some tools are an audience response system that allows instructors to use their mobile devices to scan the classroom to read student performance based on voting cards. Add a new class in ICT tools like ERP, fill in the class information, complete the question, and edit the answer. Share to students, display the question, and scan the answers from the login credential given by the students. The percentage of students who answered correctly can be viewed on the screen.

**Day 12: Saturday, 17 December 2022**

**Session-19**

**Venue: BB-31 Presentation Hall**

**Timings: 9:30 am-12:30 pm**

**Speaker: Dr. Budhesh Kanwar, Professor, PIET, Jaipur**

**Program: Teaching-Learning Methods**



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In this session, Dr. Budhesh Kanwar discussed different teaching-learning models that teachers can implement in online and regular classrooms. This session described different types of teaching methods, including traditional methods, blended learning methods, and the use of massive open online courses. She then explains the benefits of methods such as the flipped classroom and personalized teaching and learning, and discusses how to best implement them.

**Day 12: Saturday, 17 December 2022**

**Session-20**

**Venue: BB-31 Presentation Hall**

**Timings: 01:30 am-03:00 pm**

**Speaker: Dr. Budhesh Kanwar, Professor, PIET, Jaipur**

**Program: Valedictory Session**

The programme started with the welcome address by Dr. Ritu Soryan who gave a brief reference of the key takeaways from the programme and asked a couple of participants to share their feedback. Followed by a speech by the Dr. Gautam Singh (Registrar, PIET, Jaipur). Certificates were distributed to all the faculty participants by Dr. Dinesh Goyal (Director/Principal, PIET, Jaipur). Dr. Mukesh Chandra, Coordinator of IQAC presented the report on the Faculty Induction program. Later the participants shared their experiences and feedback. Dr. Sama Jain (HoD, First Year) gave a vote of thanks and the Faculty Induction Programme was concluded by the National Anthem at the end.





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