National Institute of Technical Teachers' Training and Research, Bhopal

<u>PROGRAMME BRIEF</u>

- **Title of the Program:**
- **Program code:** Guj-6
- **Programme duration:** 12-06-2023 to 23-06-2023
- **Venue:** Extn. Centre Ahmedabad

Rationale:

Outcome-based Education involves the outcome-based curriculum, Outcome based learning and teaching and assessment and evaluation process. In engineering education to demonstrate the quality of graduates by measuring their performance and technical skills, worldwide educational institutions observed a lack in the traditional education system which has many limitations regarding the delivery mechanism and assessment of technical knowledge and skills of the engineers. Outcome based Education is currently of much potential in the global educational scenario. Implementing outcome-based curriculum scientifically leads to outcome-based education successfully, which depends on student-centred learning approach. It exhibits clear expectation of what needs to be accomplished by the end of the course from each student. This Program will open a window for participants to implement outcome-based curriculum for the courses of applied sciences in the technical programme curriculum.

Programme Outcomes:
2.1. Explain stakeholder's role in effective curriculum implementation.
2.2. Analyse the curriculum of a particular course In-tune with OBE and NEP 2020.
2.3. Identify pedagogical tools for course outcomes delivery.
2.4. Plan to use different teaching methods to achieve outcomes in all three domains.
2.5. Design different types of laboratory experiments (Samples).
2.6. Prepare a sample plan for the implementation of laboratory experiences.
2.7. Design sample problem/ project plan with essential elements of implementation and assessment.
2.8. Map appropriate assessment tools with LOs of each course.
2.9. Use digital technologies for implementation and assessment of OBC.
2.10. Prepare a sample question paper incorporating various types of questions.
2.11. Map questions with LOs at Bloom's Taxonomy level.
2.12. Prepare Rubrics with Bloom's Taxonomy level and LOs.
2.13. Measure students' performance against LO threshold, course wise.
2.14. Measure students' performance against LO threshold, semester wise.

Programme Content:
NEP 2020, Philosophy of OBE, learning outcomes at various levels, Outcome based curriculum implementation, Curriculum analysis, pedagogical techniques/teaching methods, Assessment types, assessment instruments, attainment level, mapping at different level, models of creative problem solving, method of design of laboratory experiences, simulation, self-learning, content beyond the curriculum.

Instructional Strategy: Following participative strategies will be employed.

- Interactive Input sessions; brainstorming; Individual Assignments
- Group discussion and Group tasks.
- Presentations & feedback

Target Group: Faculty members of Applied Sciences.

Coordinator & Faculty details: Week-1 Coordinator –

1. **Dr. Deepak Singh**, Associate Professor, Department of Applied ScienceTel, No. (O): +91-(755) 2661600, Ext- 386, E-mail: dsingh@nitttrbpl.ac.in Mobile: + 91 9826991961

2. **Prof. P. K. Purohit**, Professor, Department of Applied ScienceTel, No. (O): +91(755) 2661600, Ext- 382, E-mail: pkpurohit@nitttrbpl.ac.in Mobile: + 91 9826098924

Coordinator Week-2:

1. **Dr. Hussain Jeeva khan**, Assistant Professor Department of Applied Science,Tel, No.(O): +91(755) 2661600, Ext- 360, Email: hjeevakhan@nitttrbpl.ac.in Mobile: + 91 9977505152

2. **Dr. Bashirulla Shaik**, Assistant Professor, Department of Applied Science,Tel, No.(O): +91(755) 2661600, Ext- 385, Email: bshaik@nitttrbpl.ac.in Mobile: + 91 9981382711

Tentative Programme Schedule: Week-1

Day	Session 1 10.00 AM- 11.30 AM	Session 2 11.45 AM - 13.15 PM	Lunch 13.30 PM - 2.00 PM	Session 3 2.15 PM - 3.45 PM	Session 4 4.00 PM -5.30 PM
Day-1 Monday	Introduction to Programme Structure Content Expected outcomes	Overview: NEP 2020		Philosophy of OBE and NBA Accreditation	Learning Outcomes at Various Levels
Day-2 Tuesday	• Curriculum Analysis • Select a Course Curriculum and revisit COs and SLOs			Outcome Based Curriculum Implementation. Prepare Course Implementation Plan, Task-1	

Day	Session 1	Session 2	Lunch	Session 3	Session 4
Day-3 Wednesday	Pedagogical Techniques/Teaching Methods in Various Domains of Learning. Select Pedagogical Tools for Course Outcome Delivery- Task-2			Problem Based Learning and Project Based Learning to achieve HOLOs.	
Day-4 Thursday	Design of Outcome Based Laboratory Experiences			Task-3 Mapping of Experiments with Cos. Design of Laboratory Experience	
Day-5 Friday	Types of Assessment. Assessment Instruments			Task Finalization Presentation, feedback and Summarization of Learning.	Achievement test Week-1 & Program Feedback

Tentative Programme Schedule: Week-2

Day	Session 1	Session 2	Lunch	Session 3	Session 4
	10.00 AM- 11.30 AM	11.45 AM -13.15 PM	13.30 PM - 2.00 PM	2.15 PM - 3.45 PM	4.00 PM -5.30 PM
Day-6 Monday	Self-Learning Module, Development of E-Content for OBE in four quadrants, MOOCs,			Assessment of Learning in Cognitive Domain-Question Paper Design in-line with Cos Task-4	
Day-7 Tuesday	Micro projects for Effective Implementation of OBC-IKS			Rubrics: Assessment of Attitudinal Learning Task-5	
Day-8 Wednesday	Use of Digital technologies for T-L and Assessment			Use of Assignments for OBC Implementation, Task-6	
Day-9 Thursday	Attainment of LO threshold course wise			Attainment of LO threshold semester wise	
Day-10 Friday	Content Beyond Curriculum	Notational and Experiential Learning		Summarization of Learning.	Achievement test Week-2 & Feedback Valedictory