



**NITTTR
BHOPAL**



OBE-3/2025-2026

Innovative Lab Experiences based on Outcome-Based Education in Metallurgical Engineering

23-06-2025 to 27-06-2025

Ext. Centre, Raipur

<https://erp.nitttrbpl.ac.in/poc2025/?id=regOBE-3>

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Rationale

Outcome-Based Education (OBE) has emerged as a pivotal approach in engineering education, ensuring that engineering students possess the required skills, knowledge, and competencies to meet industry demands. Traditional laboratory practices in Metallurgical Engineering often focus on procedural learning, lacking the depth required to develop problem-solving abilities, critical thinking, and industry-aligned skills. The practical experiences enable students to apply the desired skills in real-world scenarios. To address these issues, a well-structured laboratory manual in Metallurgical Engineering that aligns with the principles of OBE serves as a valuable resource for engineering teachers, students, and industry professionals in Metallurgical Engineering.

The lab manual emphasizes learning outcomes and detailed experimental procedures, ensuring compliance with safety measures and regulations while also promoting the development of analytical skills.

Programme Outcomes

Participants will be able to -

- comprehend the Outcome Based Education and Curriculum.
- classify experiments based on derived learning outcomes
- use the program structure for the lab manual and lab work assessment.
- develop a laboratory manual for the identified course of Metallurgical Engineering.

Programme Content

Outcome Based Education, Outcome Based Curriculum, program structure of engineering program, types of experiments, innovative lab experiences, criteria of lab work assessment, safety measures, and regulations, selection of relevant lab equipment, lab work assessment and key components of engineering lab manual

Target Group

Faculty from Engineering Educational Institutions

Coordinator & Co-Faculty

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Expert



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