



London TDM

# Engineering and Technical Skills Training Courses

**Course Venue:** United Arab Emirates - Dubai

**Course Date:** From 05 July 2026 To 09 July 2026

**Course Place:** Downtown Dubai

**Course Fees:** 5,000 USD

## Introduction

Instrumentation calibration and loop checking are critical processes in ensuring accurate and reliable measurement readings in industrial applications. This 5-day professional course is designed to provide participants with the knowledge and skills necessary to effectively calibrate instruments and perform loop checks. Through a mix of theoretical concepts and practical exercises, attendees will learn to maintain instrumentation accuracy and integrity, which is essential for process control and operational efficiency.

- Understand the fundamentals of instrument calibration and loop checking.
- Develop skills to perform calibration procedures and loop checks accurately.
- Learn to troubleshoot common issues found during calibrations and loop checks.
- Gain expertise in using calibration equipment and reading technical documentation.
- Enhance safety measures and operational standards during instrument maintenance.

## Course Outlines

### Day 1: Introduction to Instrumentation and Calibration Basics

- Overview of instrumentation types and their applications
- Principles of measurement and control systems
- Introduction to calibration concepts and standards
- Understanding calibration terminology and documentation
- Safety practices and regulations in calibration

### Day 2: Calibration Equipment and Procedures

- Types of calibration equipment and their usage
- Setting up and configuring calibrators
- Step-by-step calibration procedures for various instruments
- Documenting and interpreting calibration results
- Hands-on lab activities with calibration tools

### Day 3: Loop Checking Fundamentals

- Introduction to control loops and their components
- Understanding loop diagrams and signal paths
- Loop checking procedures and methodologies
- Troubleshooting and diagnosing loop issues
- Real-life case studies on loop checks

### Day 4: Advanced Calibration Techniques and Tools

- Exploring advanced calibration techniques
- Using digital and automated calibration tools
- Calibration in hazardous and extreme environments
- Performing multi-variable and high-accuracy calibrations
- Interactive advanced calibration exercises

## **Day 5: Examination, Review, and Best Practices**

- Written and practical examination
- Review of key concepts and techniques
- Best practices in calibration and loop checking
- Implementing calibration management systems
- Course feedback and certification distribution