

## CERTIFIED PLANT ENGINEER (CPE)

*"Advance Your Engineering Expertise to Manage Facilities with Maximum Safety, Efficiency, and Reliability."*

### Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** Face-to-Face & Online Training, In-House Training

### Introduction

The Certified Plant Engineer (CPE) program is a comprehensive training designed for engineering professionals responsible for the operation, maintenance, and management of industrial plants and facilities. This intensive course blends mechanical, electrical, civil, and environmental engineering with core principles of maintenance, utilities, energy management, and occupational safety. Participants are prepared for the CPE credential and equipped to manage plant operations efficiently and safely.

### Objectives

Upon completion, participants will be able to:

- Understand the scope and role of plant engineering in industrial settings
- Apply best practices in maintenance, equipment reliability, and energy systems
- Manage building systems, utilities, and safety compliance
- Develop preventive maintenance programs and sustainability plans
- Prepare for CPE certification with targeted exam-aligned instruction

## Why Attend

Whether you are a plant engineer, facilities manager, or technical supervisor, this course enhances your ability to lead operations and maintenance strategies in line with global best practices. It helps you reduce downtime, optimize plant performance, and elevate safety standards.

## Target Audience

- Plant Engineers and Maintenance Engineers
- Facility Managers and Engineering Supervisors
- Operations and Production Managers
- Safety Officers and Technical Officers
- Engineers preparing for the CPE exam

## Individual Benefits

- Gain comprehensive, multi-disciplinary plant engineering knowledge
- Prepare to sit for the Certified Plant Engineer (CPE) credential
- Increase efficiency, technical leadership, and problem-solving capacity
- Improve your career prospects in facilities and operations management

## Organizational Benefits

- Improve plant reliability, uptime, and energy efficiency
- Reduce operating costs through effective maintenance strategies
- Enhance safety, compliance, and risk management
- Build strong engineering leadership within technical teams

## Instructional Methodology

- Instructor-led technical modules and practical simulations
- Case studies and performance improvement planning
- Equipment maintenance exercises and systems walkthroughs
- Group activities, quizzes, and exam-style questions
- Certification-aligned knowledge assessments

## Course Outline

### DETAILED 5-DAY COURSE OUTLINE (CUSTOMIZABLE)

**Training Hours:** 7:30 AM – 3:30 PM **Daily Format:** 3–4 Learning Modules | Coffee Breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

#### Day 1: Fundamentals of Plant Engineering

- Module 1: Introduction to Plant Engineering & Facility Roles (07:30 – 09:30)
- Module 2: Overview of Engineering Disciplines in Plant Operations (09:45 – 11:15)
- Module 3: Engineering Ethics, Codes, and Standards (11:30 – 01:00)
- Module 4: Project Management in Plant Engineering (02:00 – 03:30)

#### Day 2: Mechanical & Electrical Systems

- Module 1: Equipment Reliability, Lubrication & Bearings (07:30 – 09:30)
- Module 2: Pumps, Compressors, Boilers & HVAC Systems (09:45 – 11:15)
- Module 3: Electrical Systems, Transformers & Motors (11:30 – 01:00)
- Module 4: Power Distribution, Backup Systems & Controls (02:00 – 03:30)

#### Day 3: Maintenance and Asset Management

- Module 1: Preventive and Predictive Maintenance Strategies (07:30 – 09:30)
- Module 2: Condition Monitoring and Asset Health (09:45 – 11:15)
- Module 3: Maintenance Management Systems (CMMS) (11:30 – 01:00)
- Module 4: Spare Parts Management and Inventory Planning (02:00 – 03:30)

#### Day 4: Utilities, Energy, and Environmental Systems

- Module 1: Steam, Water, and Compressed Air Systems (07:30 – 09:30)
- Module 2: Energy Audits & Energy Efficiency Measures (09:45 – 11:15)
- Module 3: HVAC and Building Automation Systems (11:30 – 01:00)
- Module 4: Environmental Compliance & Waste Management (02:00 – 03:30)

#### Day 5: Safety, Risk & Certification Preparation

- Module 1: Workplace Safety, Fire Protection & Emergency Systems (07:30 – 09:30)
- Module 2: OSHA Standards, Risk Management & Safety Audits (09:45 – 11:15)
- Module 3: Mock Exam – CPE-Style Assessment (11:30 – 01:00)
- Module 4: Final Review, Action Planning & Certification Wrap-Up (02:00 – 03:30)

## Certification

Participants who complete the training and successfully pass the final assessment will receive a Certificate of Completion – Certified Plant Engineer (CPE) Preparation. This program provides a strong foundation for those pursuing formal CPE credentials and positions them for leadership roles in plant and facility management.

## Why Choose MAWA Events

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