Industrial Coatings and Linings Training Course

Professional Development Training Course Outline

Category	General Training	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Industrial coatings and linings play a critical role in protecting infrastructure, equipment, and assets from corrosion, chemical exposure, abrasion, and extreme environmental conditions. In industries such as oil & gas, marine, petrochemical, power generation, and construction, the demand for high-performance coating systems continues to grow due to increasing asset longevity requirements, regulatory compliance, and sustainability targets. Industrial Coatings and Linings Training Course is designed to equip professionals with advanced technical knowledge and hands-on expertise in surface preparation, coating selection, application techniques, inspection, and quality control aligned with global standards.

With rising focus on corrosion prevention technology, asset integrity management, protective coating systems, and industrial maintenance optimization, this training provides a comprehensive understanding of modern coating solutions including epoxy systems, polyurethane coatings, zinc-rich primers, thermal spray coatings, and chemical-resistant linings. Participants will gain practical insights into real-world industrial challenges, failure analysis, and best practices for extending service life of critical assets. The course integrates global standards such as ISO, NACE/AMPP guidelines, and industry-specific specifications to ensure competency in delivering high-performance coating solutions across diverse industrial environments.

Programme Curriculum

Industrial Coatings and Linings Training Course

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Course Duration

5 days

Course Objectives

1. Master industrial corrosion control strategies for asset protection
2. Understand surface preparation standards
3. Apply advanced coating selection techniques for harsh environments
4. Develop expertise in protective coating systems engineering
5. Implement corrosion prevention and mitigation technologies
6. Learn industrial paint inspection and quality assurance methods
7. Gain proficiency in blasting and surface profile measurement techniques
8. Understand chemical-resistant lining systems for tanks and pipelines
9. Apply coating failure analysis and defect diagnostics
10. Enhance knowledge of marine and offshore coating applications
11. Master industrial maintenance and asset integrity planning
12. Learn environmental compliance in coating operations
13. Develop skills in inspection reporting and digital coating documentation systems

Target Audience

1. Corrosion engineers and materials engineers
2. Coating inspectors and QA/QC professionals
3. Maintenance and reliability engineers
4. Oil & gas industry technicians and supervisors
5. Marine and offshore platform personnel
6. Industrial painting contractors and applicators
7. Civil and structural engineers
8. Asset integrity and plant operations managers

Course Modules

Module 1: Fundamentals of Corrosion and Protection

- Electrochemical corrosion mechanisms
- Types of corrosion in industrial environments
- Corrosion lifecycle of industrial assets
- Protective coating principles

- Environmental factors affecting degradation
- **Case Study:** Corrosion failure in offshore drilling platform structure

Module 2: Surface Preparation Techniques

- Abrasive blasting methods
- Surface cleanliness standards
- Surface profile measurement techniques
- Power tool cleaning methods
- Contamination detection and removal
- **Case Study:** Premature coating failure due to poor surface preparation in refinery tank

Module 3: Industrial Coating Systems and Materials

- Epoxy, polyurethane, and alkyd coatings
- Zinc-rich and inorganic coatings
- High-temperature resistant coatings
- Specialty industrial linings
- Coating compatibility and selection matrix
- **Case Study:** Chemical plant pipeline failure due to incorrect coating selection

Module 4: Application Methods and Techniques

- Air spray, airless spray, and brush application
- Mixing ratios and pot life control
- Environmental conditions during application
- Film thickness control (DFT)
- Multi-coat system application
- **Case Study:** Uneven coating thickness in power plant heat exchanger

Module 5: Inspection, Testing, and Quality Control

- Wet and dry film thickness testing
- Holiday detection methods
- Adhesion testing procedures
- Visual inspection standards
- Coating inspection reporting
- **Case Study:** Coating delamination detected during pipeline inspection audit

Module 6: Industrial Linings and Chemical Protection Systems

- Tank linings and immersion systems
- Acid and alkali-resistant coatings
- Rubber and ceramic linings
- Pipeline internal linings
- Failure mechanisms in lining systems
- **Case Study:** Storage tank lining failure due to chemical incompatibility

Module 7: Failure Analysis and Maintenance Strategies

- Coating defect classification
- Root cause failure analysis (RCFA)

- Maintenance coating strategies
- Repair and recoating techniques
- Lifecycle cost optimization
- **Case Study:** Cost escalation due to repeated recoating in marine vessel hull

Module 8: Standards, Safety, and Sustainability

- ISO, NACE/AMPP coating standards
- Environmental and VOC regulations
- Health and safety in coating operations
- Waste management in coating projects
- Sustainable coating technologies
- **Case Study:** Regulatory non-compliance in industrial coating emissions audit

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com