ISO 14001 in Manufacturing Training Course

Professional Development Training Course Outline

Category	Manufacturing	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today’s rapidly evolving industrial landscape, sustainability, environmental compliance, ESG reporting, and carbon neutrality have become core business imperatives. The ISO 14001 Environmental Management System (EMS) provides a globally recognized framework that enables manufacturing organizations to minimize environmental impact, ensure regulatory compliance, and improve operational efficiency. ISO 14001 in Manufacturing Training Course is designed to equip professionals with advanced knowledge of environmental risk management, lifecycle assessment, pollution prevention, and sustainable manufacturing practices, aligned with global green standards and climate action goals.

Manufacturing industries face increasing pressure from regulators, stakeholders, and consumers to adopt green manufacturing, circular economy principles, decarbonization strategies, and net-zero roadmaps. This ISO 14001 training empowers participants to implement robust EMS frameworks that enhance environmental performance while driving cost reduction, waste minimization, energy efficiency, and corporate sustainability leadership. The course integrates practical tools, real-world case studies, and compliance strategies to ensure organizations meet both local and international environmental obligations.

Programme Curriculum

ISO 14001 in Manufacturing Training Course

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10 days

Course Objectives

1. Understand ISO 14001:2015 EMS framework and global sustainability standards
2. Implement environmental compliance and regulatory risk management
3. Develop carbon footprint reduction strategies in manufacturing
4. Apply life cycle assessment (LCA) methodologies
5. Design and implement sustainable manufacturing systems
6. Improve waste management and circular economy integration
7. Strengthen ESG reporting and sustainability disclosure
8. Conduct environmental aspect and impact assessment
9. Enhance energy efficiency and resource optimization
10. Build climate change mitigation and adaptation strategies
11. Establish environmental performance monitoring systems
12. Achieve ISO 14001 certification readiness
13. Promote green supply chain and sustainable procurement practices

Target Audience

1. Environmental Health & Safety (EHS) Managers
2. Manufacturing Plant Managers
3. Quality Assurance Professionals
4. Sustainability Officers & ESG Analysts
5. Production Engineers
6. Compliance & Risk Management Officers
7. Operations Directors
8. Consultants in Environmental Management Systems

Course Modules

Module 1: Introduction to ISO 14001 EMS

- Overview of ISO 14001:2015 structure
- Key EMS principles and frameworks
- PDCA (Plan-Do-Check-Act) cycle
- Environmental policy development
- Benefits of ISO 14001 certification
- **Case Study:** Toyota’s lean manufacturing integration with ISO 14001 EMS for waste reduction.

Module 2: Environmental Legislation & Compliance

- Global environmental regulations overview
- Local compliance requirements in manufacturing
- Legal registers and obligations
- Penalties for non-compliance
- Regulatory monitoring systems
- **Case Study:** Volkswagen emissions compliance failure and corrective EMS implementation.

Module 3: Environmental Aspects & Impacts

- Identification of environmental aspects
- Impact significance evaluation
- Risk-based thinking approach
- Operational control measures
- Documentation of environmental impacts
- **Case Study:** Nestlé water usage impact assessment in production facilities.

Module 4: Environmental Risk Management

- Risk identification techniques
- Environmental hazard analysis
- Risk prioritization matrix
- Mitigation strategies
- Emergency preparedness planning
- **Case Study:** BP oil spill environmental risk failure analysis.

Module 5: Life Cycle Assessment (LCA)

- Product life cycle stages
- Environmental impact measurement
- Carbon footprint tracking
- LCA tools and software
- Sustainable product design
- **Case Study:** Apple product lifecycle environmental optimization strategy.

Module 6: Waste Management & Circular Economy

- Waste hierarchy principles
- Zero waste manufacturing strategies
- Recycling and reuse systems
- Industrial symbiosis models
- Circular economy integration
- **Case Study:** IKEA circular product lifecycle transformation.

Module 7: Energy Management & Efficiency

- Energy auditing techniques
- Renewable energy integration
- Energy performance indicators
- ISO 50001 alignment
- Energy-saving technologies
- **Case Study:** Siemens energy efficiency transformation in manufacturing plants.

Module 8: Water Resource Management

- Water footprint analysis
- Wastewater treatment systems
- Water recycling technologies
- Conservation strategies
- Regulatory water compliance
- **Case Study:** Coca-Cola water replenishment sustainability program.

Module 9: EMS Documentation & Control

- Document control procedures
- Environmental manuals and records
- Standard operating procedures (SOPs)
- Digital EMS systems
- Audit trail management
- **Case Study:** Samsung digital EMS documentation system implementation.

Module 10: Internal & External Auditing

- ISO 14001 audit requirements
- Internal audit planning
- Non-conformance reporting
- Corrective actions system
- Third-party certification audits
- **Case Study:** Bureau Veritas ISO 14001 certification audit process.

Module 11: Environmental Performance Evaluation

- KPI development for EMS
- Monitoring and measurement systems
- Data analytics in sustainability
- Performance benchmarking
- Continuous improvement models
- **Case Study:** Unilever sustainability performance tracking system.

Module 12: Emergency Preparedness & Response

- Environmental emergency planning
- Spill control procedures
- Crisis management systems
- Training and drills
- Incident reporting mechanisms
- **Case Study:** ExxonMobil emergency response strategy improvement.

Module 13: Green Supply Chain Management

- Sustainable procurement strategies
- Supplier environmental evaluation
- Eco-friendly logistics systems
- Supply chain emissions tracking
- ESG supplier audits

- **Case Study:** Walmart sustainable supply chain transformation.

Module 14: Climate Change & Carbon Management

- Carbon accounting methods
- Net-zero strategies
- Emission reduction pathways
- Carbon trading systems
- Climate adaptation planning
- **Case Study:** Microsoft carbon negative initiative.

Module 15: ISO 14001 Certification Implementation

- Certification process steps
- Gap analysis techniques
- Implementation roadmap
- Management review systems
- Continuous improvement cycles
- **Case Study:** BMW Group ISO 14001 global certification rollout.

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	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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

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