

# TRAINING ON MANUFACTURING INDUSTRY



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# ABOUT US

**Welcome to Pertecnica, where knowledge meets expertise! As a leading employee training institute, we specialize in a diverse range of sectors, providing top-notch induction trainings, refresher courses, and elevating skills through our upgradation programs. We take pride in offering mandatory trainings that ensure compliance and safety trainings across various sectors/industries especially in the dynamic sector of Manufacturing Industry. At Pertecnica, we are your partners in growth, fostering a culture of continuous learning and development. Join us on a transformative journey.**



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# INDUCTION TRAININGS

## - for Manufacturing Industry

### Training on Manufacturing Processes and Technologies:

- Comprehensive training on various manufacturing processes such as machining, casting, and molding.
- Overview of cutting-edge manufacturing technologies, including automation and Industry 4.0.
- Hands-on demonstrations and simulations for a practical understanding of manufacturing techniques.

### Training on Workplace Safety and Hazard Awareness:

- In-depth training on safety protocols and hazard awareness specific to manufacturing environments.
- Identification of potential workplace hazards and preventive measures.
- Practical exercises and drills for promoting a culture of safety in manufacturing facilities.

### Quality Control and Assurance in Manufacturing:

- Comprehensive training on quality control principles and assurance practices.
- Understanding of quality standards, inspection techniques, and defect prevention.
- Hands-on exercises for implementing quality control measures in manufacturing processes.



### **Machine Operation and Equipment Handling:**

- In-depth training on safe and efficient operation of manufacturing machinery and equipment.
- Identification of machine components, controls, and maintenance procedures.
- Practical demonstrations and hands-on training for operating manufacturing equipment.

### **Lean Manufacturing Principles and Continuous Improvement:**

- Comprehensive training on lean manufacturing principles for waste reduction and efficiency improvement.
- Overview of continuous improvement methodologies and Kaizen practices.
- Application of lean concepts through simulations and real-world examples.

### **Training on Supply Chain and Logistics in Manufacturing:**

- In-depth training on supply chain principles, logistics, and inventory management in manufacturing.
- Understanding of demand forecasting, procurement, and distribution strategies.
- Practical applications and case studies for optimizing supply chain processes.

### **Environmental Sustainability in Manufacturing Practices:**

- Comprehensive training on sustainable manufacturing practices and environmental impact reduction.
- Overview of eco-friendly processes, waste management, and energy efficiency.
- Practical exercises for implementing sustainable practices in manufacturing operations.



## Teamwork and Communication in Manufacturing

### Teams:

- In-depth training on effective teamwork and communication within manufacturing teams.
- Understanding of collaborative problem-solving, conflict resolution, and decision-making.
- Role-playing scenarios and practical exercises for enhancing teamwork skills.

### Training on Industrial Automation and Robotics:

- Comprehensive training on industrial automation technologies, control systems, and robotics.
- Overview of programmable logic controllers (PLCs) and robotic applications in manufacturing.
- Hands-on experience with automation systems for a practical understanding.

### Training Occupational Health and Ergonomics in Manufacturing:

- In-depth training on occupational health principles and ergonomics in manufacturing settings.
- Understanding of optimizing work environments for employee well-being and safety.
- Practical applications and demonstrations for promoting ergonomic practices in manufacturing.



# REFRESHER TRAININGS

## - for Manufacturing Industry

### Advanced Manufacturing Technologies:

- Updates on the latest advancements in manufacturing technologies and Industry 4.0.
- In-depth training on the integration of automation, IoT, and smart manufacturing.
- Practical applications and case studies for applying advanced manufacturing technologies.

### Current Safety Practices and Emergency Response:

- Updates on current safety protocols and regulations in manufacturing environments.
- Advanced training on emergency response procedures and crisis management.
- Simulations and drills to reinforce safety practices and response readiness.

### Quality Management Systems and Continuous Improvement:

- Updates on changes in quality management standards and practices.
- Advanced training on continuous improvement methodologies and Lean principles.
- Practical exercises and simulations for implementing and enhancing quality control.



### **Advanced Machine Operation and Maintenance:**

- Updates on the latest advancements in machine operation and maintenance.
- In-depth training on troubleshooting and preventive maintenance of manufacturing equipment.
- Hands-on demonstrations and practical exercises for advanced machine handling.

### **Supply Chain Optimization and Lean Logistics:**

- Updates on current trends and strategies for supply chain optimization in manufacturing.
- Advanced training on Lean logistics principles for waste reduction and efficiency improvement.
- Case studies and simulations for applying advanced supply chain optimization techniques.

### **Environmental Sustainability in Manufacturing:**

- Updates on the latest practices and regulations in sustainable manufacturing.
- Advanced training on energy efficiency, waste reduction, and eco-friendly processes.
- Practical exercises for enhancing and implementing sustainable practices in manufacturing.

### **Advanced Industrial Automation and Robotics:**

- Updates on the latest advancements in industrial automation and robotics.
- Advanced training on programming, integration, and maintenance of automation systems.
- Hands-on experience with advanced automation technologies and applications.



### **Advanced Occupational Health and Ergonomics:**

- **Updates on advancements in occupational health and safety practices.**
- **Advanced training on ergonomic design principles for manufacturing workstations.**
- **Practical applications and case studies for promoting advanced occupational health practices.**

### **Data Analytics for Manufacturing Improvement:**

- **Updates on the latest tools and techniques for data analytics in manufacturing.**
- **Advanced training on predictive analytics, machine learning, and statistical modeling.**
- **Hands-on exercises using real-world manufacturing data sets for advanced analysis.**

### **Advanced Lean Manufacturing and Six Sigma:**

- **Updates on the latest advancements in Lean manufacturing and Six Sigma methodologies.**
- **Advanced training on statistical process control, DMAIC methodology, and process optimization.**
- **Application of advanced Lean and Six Sigma concepts through simulations and real-world examples.**





# **SKILL UPGRADATION PROGRAMME**

## **- for Manufacturing Industry**

### **Advanced CNC Machining Skills Program:**

- In-depth training on advanced CNC machining techniques and programming.
- Hands-on experience with multi-axis machining and complex part setups.
- Practical applications and simulations for enhancing precision machining skills.

### **Robotics Programming and Integration Skills Program:**

- Comprehensive training on programming and integrating robotics in manufacturing processes.
- Advanced understanding of robotic applications, control systems, and end-of-arm tooling.
- Hands-on projects for developing proficiency in robotics programming and automation.

### **Industrial Data Analytics and IoT Integration Program:**

- In-depth training on utilizing data analytics and IoT for process optimization.
- Advanced understanding of data-driven decision-making and predictive analytics.
- Hands-on exercises using real manufacturing data for advanced analytics applications.



### **Advanced Welding and Metal Fabrication Program:**

- Comprehensive training on advanced welding techniques and metal fabrication processes.
- In-depth knowledge of various welding methods, metallurgy, and material science.
- Practical projects for mastering advanced welding skills and fabricating complex structures.

### **Advanced CAD/CAM Design and Simulation Program:**

- In-depth training on advanced computer-aided design (CAD) and computer-aided manufacturing (CAM).
- Advanced simulation techniques for virtual prototyping and process optimization.
- Hands-on projects for designing and simulating complex manufacturing components.

### **Supply Chain and Logistics Optimization Program:**

- Comprehensive training on advanced supply chain optimization strategies.
- Advanced understanding of demand forecasting, inventory management, and logistics.
- Practical exercises and case studies for implementing advanced logistics optimization techniques.

### **Advanced Lean Manufacturing and Six Sigma Program:**

- In-depth training on advanced Lean manufacturing principles and Six Sigma methodologies.
- Advanced statistical process control, DMAIC methodology, and root cause analysis.
- Application of advanced Lean and Six Sigma concepts through simulations and real-world examples.



## **Additive Manufacturing and 3D Printing Skills Program:**

- **Comprehensive training on additive manufacturing technologies and 3D printing.**
- **In-depth knowledge of materials, processes, and design considerations in 3D printing.**
- **Hands-on projects for mastering the skills needed in additive manufacturing.**

## **Cybersecurity for Manufacturing Systems Program:**

- **In-depth training on cybersecurity principles and best practices in manufacturing.**
- **Advanced understanding of securing industrial control systems and connected devices.**
- **Practical exercises for implementing cybersecurity measures in manufacturing environments.**

## **Advanced Materials and Composite Manufacturing Program:**

- **Comprehensive training on advanced materials, composites, and their manufacturing processes.**
- **In-depth knowledge of material selection, processing, and testing in composite manufacturing.**
- **Practical projects for hands-on experience with advanced materials and composites.**



# MANDATORY TRAINING

## - for Manufacturing Industry

### Occupational Health and Safety Certification:

- Comprehensive training on occupational health and safety regulations in manufacturing.
- Identification of workplace hazards and preventive measures.
- Certification upon successful completion, ensuring compliance with safety standards.

### ISO 9001 Quality Management Systems Training:

- In-depth training on ISO 9001 standards for quality management systems.
- Understanding of quality control, continuous improvement, and customer satisfaction.
- Practical exercises for implementing and maintaining quality management systems.

### Legal Compliance and Regulatory Training:

- Comprehensive training on legal requirements and regulations relevant to manufacturing.
- Understanding of compliance obligations and reporting procedures.
- Practical exercises for ensuring legal compliance in manufacturing operations.





### **Anti-Harassment and Diversity Training:**

- In-depth training on fostering a diverse and inclusive workplace culture.
- Understanding of anti-harassment policies, prevention, and reporting procedures.
- Certification to demonstrate commitment to diversity and inclusion principles.

### **Emergency Evacuation and Response Procedures:**

- Comprehensive training on emergency response protocols specific to manufacturing environments.
- Identification of emergency exit routes, assembly points, and communication methods.
- Simulation exercises and drills for effective emergency response and evacuation.

### **Hazardous Materials Handling and Safety Training:**

- In-depth training on the safe handling, storage, and disposal of hazardous materials.
- Identification of chemical hazards and proper use of Material Safety Data Sheets (MSDS).
- Practical exercises for safe handling and emergency response to hazardous materials.

### **Confined Space Entry and Rescue Procedures:**

- Comprehensive training on the hazards of confined spaces in manufacturing environments.
- Understanding of confined space entry protocols, monitoring, and rescue procedures.
- Hands-on exercises and simulations for safe confined space entry and rescue.



## **Advanced Fire Safety and Prevention Training:**

- **In-depth training on fire safety principles and preventive measures.**
- **Understanding of fire extinguisher usage, evacuation procedures, and fire suppression systems.**
- **Practical drills for handling fire-related emergencies in manufacturing settings.**

## **Ethics and Professional Conduct in Manufacturing:**

- **Comprehensive training on ethical standards and professional conduct in the industry.**
- **Understanding of ethical considerations in decision-making and project management.**
- **Case studies and scenarios for ethical problem-solving in manufacturing.**

## **Data Security and Cybersecurity Awareness:**

- **In-depth training on data security and cybersecurity principles in manufacturing.**
- **Understanding of protecting sensitive information, securing networks, and avoiding cyber threats.**
- **Practical exercises for implementing cybersecurity measures to safeguard manufacturing systems.**



# SAFETY TRAINING

## - for Manufacturing Industry

### Machine Safety and Lockout/Tagout Procedures:

- In-depth training on machine safety principles and lockout/tagout procedures.
- Understanding of proper isolation techniques to prevent accidental machine starts.
- Practical demonstrations and hands-on exercises for implementing safe machine practices.

### Personal Protective Equipment (PPE) Usage and Maintenance:

- Comprehensive training on the proper selection, usage, and maintenance of PPE.
- Identification of specific PPE requirements for different tasks in manufacturing.
- Practical demonstrations and drills to ensure correct PPE usage.

### Emergency Response and Evacuation Procedures:

- Comprehensive training on emergency response protocols specific to manufacturing environments.
- Identification of emergency exit routes, assembly points, and communication methods.
- Simulation exercises and drills for effective emergency response and evacuation.



### **Hazardous Materials Handling and Chemical Safety:**

- In-depth training on the safe handling, storage, and labeling of hazardous materials.
- Identification of chemical hazards and proper use of Material Safety Data Sheets (MSDS).
- Practical exercises for safe chemical handling and emergency response.

### **Fall Protection and Working at Heights:**

- Comprehensive training on fall protection measures and equipment.
- Understanding of working at heights safety protocols and regulations.
- Practical demonstrations and simulations for safe practices when working at elevated positions.

### **Fire Safety and Prevention in Manufacturing Facilities:**

- In-depth training on fire safety principles and preventive measures.
- Understanding of fire extinguisher usage, evacuation procedures, and fire suppression systems.
- Practical drills for handling fire-related emergencies in manufacturing settings.

### **Confined Space Entry and Rescue Procedures:**

- Comprehensive training on the hazards of confined spaces in manufacturing environments.
- Understanding of confined space entry protocols, monitoring, and rescue procedures.
- Hands-on exercises and simulations for safe confined space entry and rescue.





## **Electrical Safety in Manufacturing Environments:**

- In-depth training on electrical safety principles and procedures.
- Identification of electrical hazards and safe work practices around electrical equipment.
- Hands-on experience with electrical safety equipment and protocols.

## **Machine Guarding and Equipment Safety:**

- Comprehensive training on machine guarding principles and equipment safety.
- Understanding of the importance of proper guarding to prevent injuries.
- Practical demonstrations and assessments for ensuring machine safety compliance.

## **Noise and Hearing Conservation Training:**

- In-depth training on the hazards of noise in manufacturing environments.
- Understanding of hearing conservation measures and the proper use of hearing protection.
- Practical applications and monitoring for minimizing noise-related risks.

