Barcode & RFID Basics Training Course

Professional Development Training Course Outline

Category	Logistics and Supply Chain Management	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Barcode & RFID Basics Training Course is designed to provide participants with comprehensive knowledge and practical skills in automatic identification and data capture technologies. Participants will gain a solid understanding of barcode and RFID systems, including scanning principles, data encoding, labeling standards, and the integration of these technologies into modern supply chain and inventory management systems. Emphasis is placed on hands-on exercises and real-world applications to enhance operational efficiency, reduce errors, and improve traceability across various industries.

This course leverages trending technologies and industry best practices to equip participants with skills in barcode symbologies, RFID tag selection, reader configurations, and data management. By the end of this training, participants will understand the end-to-end workflow of barcode and RFID systems, from design and printing to deployment and analytics. The course is ideal for professionals seeking to optimize logistics, inventory tracking, and asset management, ensuring that organizations remain competitive in fast-paced business environments.

Programme Curriculum

Barcode & RFID Basics Training Course

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Course Objectives

1. Understand the fundamentals of barcode and RFID technologies
2. Identify and select appropriate barcode symbologies for various applications
3. Demonstrate proficiency in RFID tag types and reader configurations
4. Implement best practices for barcode labeling and data accuracy
5. Analyze inventory and asset tracking processes using RFID systems
6. Integrate barcode and RFID systems into supply chain workflows
7. Conduct troubleshooting and maintenance for scanning equipment
8. Evaluate data collection methods and reporting tools for operational efficiency
9. Ensure compliance with industry standards and regulatory requirements
10. Apply emerging trends in barcode and RFID technologies
11. Develop skills for inventory optimization and stock visibility
12. Design automated tracking solutions for warehouses and retail operations
13. Improve organizational decision-making through real-time data insights

Organizational Benefits

- Enhanced inventory accuracy and reduced stock discrepancies
- Streamlined supply chain management and faster order fulfillment
- Minimized human error in data collection and processing
- Improved asset tracking and lifecycle management
- Reduced operational costs through automation
- Better compliance with industry and regulatory standards
- Increased efficiency in warehouse and logistics operations
- Improved customer satisfaction through faster product availability
- Scalability of tracking systems for business growth
- Enhanced reporting and data-driven decision-making

Target Audiences

1. Supply chain managers and coordinators
2. Warehouse supervisors and logistics personnel
3. Inventory control specialists
4. Retail operations managers
5. IT and systems integration professionals
6. Quality assurance and compliance officers
7. Production and operations managers
8. Business analysts and data professionals

Course Duration: 5 days

Course Modules

Module 1: Introduction to Barcode & RFID

- History and evolution of barcode and RFID
- Types of barcodes and RFID systems
- Key applications across industries
- Industry standards and regulatory overview
- Case study: RFID implementation in a retail warehouse
- Hands-on demonstration of basic scanning devices

Module 2: Barcode Symbologies

- Linear and 2D barcode types
- Choosing the right symbology for applications
- Encoding data in barcodes
- Label printing standards
- Case study: Barcode selection for manufacturing operations
- Practical exercise: Generating barcode labels

Module 3: RFID Fundamentals

- RFID components: tags, readers, antennas
- Passive vs. active RFID systems
- Frequency ranges and performance factors

- Integration with software systems
- Case study: RFID in supply chain optimization
- Hands-on setup of RFID reader and tag configuration

Module 4: Data Capture & Accuracy

- Data quality and verification methods
- Error detection and correction
- Scanning equipment calibration
- Data synchronization with ERP systems
- Case study: Reducing inventory errors with RFID
- Practical exercise: Testing barcode and RFID accuracy

Module 5: Inventory & Asset Management

- Inventory tracking methodologies
- Asset lifecycle management
- Real-time monitoring and reporting
- Using RFID for automated stock control
- Case study: Warehouse asset tracking using RFID
- Hands-on scenario: Tracking assets in a live environment

Module 6: System Integration & Automation

- Integrating barcode and RFID with ERP systems
- Automated workflow design
- Software and hardware interoperability
- Data analytics and reporting dashboards
- Case study: Automating warehouse operations with RFID
- Practical exercise: System integration testing

Module 7: Troubleshooting & Maintenance

- Common issues with scanners and readers
- Preventive maintenance practices
- System updates and upgrades
- Ensuring consistent performance

- Case study: Troubleshooting a failed RFID implementation
- Hands-on exercise: Diagnosing hardware and software errors

Module 8: Emerging Trends & Best Practices

- IoT integration with RFID systems
- Cloud-based inventory solutions
- AI-enhanced tracking and predictive analytics
- Sustainable and cost-effective labeling
- Case study: Adopting smart warehouse technologies
- Group exercise: Designing a future-ready tracking solution

Training Methodology

- Interactive lectures and demonstrations
- Hands-on practical exercises with barcode scanners and RFID readers
- Real-world case studies for contextual understanding
- Group discussions and scenario-based learning
- Software simulations and workflow exercises
- Assessment and feedback for continuous improvement

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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