Digital Twins for Logistics 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

The logistics and supply chain industry is undergoing a significant transformation through digital innovation. Digital Twins, as advanced virtual replicas of physical systems, offer unprecedented capabilities to model, simulate, and optimize logistics operations. Digital Twins for Logistics Training Course provides participants with practical knowledge and hands-on skills to implement digital twin technologies, enhancing operational efficiency, predictive maintenance, and data-driven decision-making. By leveraging cutting-edge simulation tools, analytics, and real-time data integration, organizations can achieve streamlined workflows, cost reductions, and superior customer satisfaction.

Participants will explore end-to-end digital twin frameworks, including the design, deployment, and integration of digital models within logistics networks. The course emphasizes scenario analysis, performance monitoring, and predictive forecasting to mitigate risks and improve supply chain resilience. Attendees will also gain insights into how digital twins can transform warehouse management, transportation, inventory planning, and demand forecasting. By the end of the course, participants will be equipped to drive innovation and implement digital twin solutions to achieve measurable organizational benefits and strategic competitiveness.

Programme Curriculum

Digital Twins for Logistics Training Course

Introduction

The logistics and supply chain industry is undergoing a significant transformation through digital innovation. Digital Twins, as advanced virtual replicas of physical systems, offer unprecedented capabilities to model, simulate, and optimize logistics operations. Digital Twins for Logistics Training Course provides participants with practical knowledge and hands-on skills to implement digital twin technologies, enhancing operational

efficiency, predictive maintenance, and data-driven decision-making. By leveraging cutting-edge simulation tools, analytics, and real-time data integration, organizations can achieve streamlined workflows, cost reductions, and superior customer satisfaction.

Participants will explore end-to-end digital twin frameworks, including the design, deployment, and integration of digital models within logistics networks. The course emphasizes scenario analysis, performance monitoring, and predictive forecasting to mitigate risks and improve supply chain resilience. Attendees will also gain insights into how digital twins can transform warehouse management, transportation, inventory planning, and demand forecasting. By the end of the course, participants will be equipped to drive innovation and implement digital twin solutions to achieve measurable organizational benefits and strategic competitiveness.

Course Objectives

1. Understand the core principles and architecture of digital twins in logistics.
2. Explore real-time data integration and IoT connectivity for digital twin modeling.
3. Learn predictive analytics and simulation techniques for supply chain optimization.
4. Apply digital twin technology to warehouse management and inventory control.
5. Develop digital twin models for transportation and fleet management.
6. Identify performance metrics and KPIs for logistics systems.
7. Conduct scenario planning and risk mitigation using digital twins.
8. Integrate AI-driven insights into logistics decision-making.
9. Understand cloud platforms and digital twin software applications.
10. Analyze cost-benefit scenarios for digital twin implementation.
11. Examine case studies on digital twin adoption in global logistics.
12. Develop strategies for digital twin governance and security.
13. Enhance organizational agility and operational resilience using digital twins.

Organizational Benefits

- Enhanced supply chain visibility and transparency
- Improved operational efficiency and productivity
- Reduced operational costs and waste
- Data-driven decision-making capabilities
- Predictive maintenance and risk management
- Faster response to market and demand changes
- Optimized inventory management and warehousing
- Streamlined transportation and fleet operations
- Improved customer satisfaction and service delivery
- Competitive advantage through innovation and technology adoption

Target Audiences

1. Supply chain managers and professionals
2. Logistics operations planners
3. IT and systems engineers in logistics
4. Data analysts and business intelligence professionals

5. Warehouse managers and supervisors
6. Transportation and fleet management personnel
7. Digital transformation officers
8. Consultants and strategists in supply chain optimization

Course Duration: 5 days

Course Modules

Module 1: Introduction to Digital Twins

- Overview of digital twin technology in logistics
- Key components and architecture
- Historical evolution and trends
- Implementation challenges and solutions
- Industry applications and benefits
- Case Study: Digital twins in Amazon warehouse operations

Module 2: IoT and Data Integration for Digital Twins

- IoT sensors and connectivity in logistics
- Real-time data collection and integration
- Data visualization and analytics
- Cloud-based data storage solutions
- Integration with ERP and WMS systems
- Case Study: DHL’s IoT-enabled digital twin logistics model

Module 3: Predictive Analytics and Simulation Techniques

- Predictive modeling for demand forecasting
- Simulation tools and methodologies
- Scenario planning and risk assessment
- AI-based predictive maintenance
- Optimization of logistics processes
- Case Study: Maersk predictive analytics for shipping optimization

Module 4: Warehouse Digital Twin Management

- Layout modeling and simulation
- Automated inventory tracking
- Performance monitoring
- Workflow optimization
- Cost-benefit analysis of digital twin implementation

- Case Study: Walmart’s warehouse automation with digital twins

Module 5: Transportation and Fleet Optimization

- Fleet modeling and routing simulation
- Real-time vehicle tracking and monitoring
- Maintenance and fuel optimization
- Dynamic scheduling and dispatch
- KPIs for fleet performance
- Case Study: UPS digital twin fleet operations

Module 6: Performance Metrics and KPIs

- Key logistics KPIs
- Monitoring digital twin outcomes
- Benchmarking and continuous improvement
- Data visualization dashboards
- KPI-driven decision making
- Case Study: FedEx digital twin performance analysis

Module 7: Digital Twin Software and Cloud Platforms

- Overview of popular digital twin software
- Cloud deployment models
- Integration with existing logistics systems
- Software evaluation and selection
- Security and compliance considerations
- Case Study: Siemens MindSphere for logistics optimization

Module 8: Implementation, Governance, and Strategy

- Planning digital twin adoption
- Governance frameworks and standards
- Cost and ROI analysis
- Staff training and change management
- Strategic alignment with organizational goals
- Case Study: DHL supply chain digital twin roadmap

Training Methodology

- Interactive lectures and concept discussions

- Hands-on simulation exercises with logistics software
- Real-life case study analysis and group discussions
- Role-play and scenario-based problem solving
- Step-by-step digital twin modeling exercises
- Q&A sessions with industry experts

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

Start Date	End Date	Location	Price
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:

Register Online Now

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