Training Course on Midstream Logistics and Transportation Optimization

Professional Development Training Course Outline

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

Course Introduction

The global energy sector is rapidly transforming, driving the need for efficient, cost-effective, and sustainable midstream logistics and transportation systems. As oil, gas, and renewable energy markets expand, the optimization of pipeline transportation, storage facilities, and supply chain management becomes essential for companies seeking to maintain a competitive edge. Training Course on Midstream Logistics & Transportation Optimization addresses the core principles of midstream infrastructure, with a focus on reducing operational costs, improving asset utilization, and integrating digital technologies like IoT, AI, and predictive analytics.

In this in-depth training, participants will explore real-world case studies, strategic frameworks, and technology applications that redefine logistics flow, pipeline integrity management, and fleet optimization. Whether you're overseeing midstream operations, transportation planning, or seeking to enhance ESG compliance, this course equips professionals with data-driven tools and proven methodologies to drive measurable improvements.

Programme Curriculum

Training Course on Midstream Logistics & Transportation Optimization

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Course Objectives

1. Understand the fundamentals of midstream oil and gas logistics.
2. Optimize pipeline transportation systems for efficiency and safety.
3. Analyze logistics cost structures and reduce transportation expenses.
4. Implement digital twin and AI modeling in logistics operations.
5. Enhance supply chain visibility using IoT and blockchain.
6. Streamline multi-modal transportation and storage solutions.
7. Strengthen asset integrity and risk management in pipelines.
8. Improve fleet routing and scheduling using predictive analytics.
9. Apply sustainability strategies in logistics operations.
10. Develop emergency response protocols for midstream logistics.
11. Explore third-party logistics (3PL) partnerships and outsourcing.
12. Align regulatory compliance with global transportation standards.
13. Use data-driven KPIs for continuous improvement in midstream logistics.

Target Audience

This course is tailored for professionals across the energy and logistics sectors, including:

1. **Supply Chain Managers** – seeking to enhance efficiency and visibility in midstream transport operations.
2. **Operations Engineers** – responsible for pipeline, terminal, and system performance.
3. **Fleet & Transportation Coordinators** – focused on vehicle scheduling, routing, and cost optimization.
4. **Logistics Analysts** – looking to apply analytics and AI to logistics problems.
5. **Safety & Compliance Officers** – ensuring logistics operations meet regulatory and environmental standards.
6. **Procurement & 3PL Managers** – overseeing outsourcing and contract logistics strategy.
7. **Sustainability Officers** – integrating ESG goals into logistics planning and reporting.
8. **Midstream Project Managers** – coordinating complex energy transport projects across regions.

Course Duration: 5 Days

Course Modules

Module 1: Introduction to Midstream Logistics

- Overview of midstream sector functions
- Key logistics challenges in oil and gas
- Storage and transportation fundamentals
- Types of transportation (pipeline, rail, truck, ship)
- Logistics value chain and stakeholder mapping
- **Case Study: Supply Chain Disruptions in North America**

Module 2: Pipeline Transportation Optimization

- Pipeline flow mechanics and control systems
- SCADA and real-time data management
- Pumping station efficiency and route planning
- Pressure loss and leak detection methods

- Integration with upstream and downstream logistics
- **Case Study: AI-Enabled Pipeline Routing in Texas**

Module 3: Fleet Optimization and Maintenance

- Routing algorithms and fuel efficiency
- Predictive maintenance scheduling
- Load management and vehicle utilization
- Fleet tracking using GPS and telematics
- Cost-per-mile optimization models
- **Case Study: Fleet Digitization in West Africa**

Module 4: Data-Driven Logistics Strategy

- Analytics in route and cargo optimization
- Demand forecasting in midstream logistics
- KPI development and benchmarking
- Use of digital twins and simulation
- Logistics dashboard implementation
- **Case Study: Predictive Analytics in LNG Transport**

Module 5: Risk, Safety & Regulatory Compliance

- HazMat transport compliance frameworks
- OSHA and international transport laws
- Emergency response planning
- Environmental impact assessments
- Risk identification and mitigation plans
- **Case Study: Compliance Breach in Pipeline Project**

Module 6: Vendor and 3PL Optimization

- Vendor selection and SLA metrics
- 3PL vs in-house transport comparison
- Contract negotiation strategies
- Logistics outsourcing best practices
- Cost-benefit analysis tools
- **Case Study: Outsourcing Logistics in Middle East Pipelines**

Module 7: ESG & Sustainable Logistics

- Reducing carbon footprint in midstream logistics
- Renewable-powered transport solutions
- Waste reduction in storage facilities
- ESG reporting tools and software
- Stakeholder communication and transparency
- **Case Study: Green Midstream Logistics in Norway**

Module 8: Integrated Project Logistics Planning

- Logistics planning for pipeline projects
- Coordination between EPC and logistics teams
- Scheduling and timeline optimization
- Budgeting and contingency management
- Cross-border transport logistics
- **Case Study: Cross-Regional Pipeline Execution in Asia**

Training Methodology

- Interactive live sessions with energy sector experts
- Hands-on workshops using logistics simulation tools
- Case study discussions for real-world learning
- Group activities to foster collaboration and practical thinking
- Assessments and quizzes to track understanding
- Personalized project work with expert feedback

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

Start Date	End Date	Location	Price
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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