MERCURY

Pipeline Transport: Economics, CAPEX, OPEX & Closure

21 – 25 February 2027
Manama (Bahrain)



Dubai - UAE: +971 4 450 5697
Istanbul - Türkiye: +90 539 599 1206
Amman - Jordan: +962 79 712 3347

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Ref: 16187_1079349 **Date:** 21 – 25 February 2027 **Location:** Manama (Bahrain) **Fees:** 4900 Euro

Introduction:

Pipeline transport plays a pivotal role in the global energy and materials supply chain, offering a cost-effective and efficient means of transporting oil, gas, water, and industrial chemicals across vast distances. This Pipeline Transport: Economics, CAPEX, OPEX, and Closure course provides an understanding of pipeline systems, with a particular emphasis on economic analysis, capital expenditure CAPEX, operational expenditure OPEX, and site closure processes.

Participants will explore lifecycle cost modeling, economic feasibility, and budgeting strategies for pipeline projects. Real-world case studies will support a deeper understanding of how economic decisions shape pipeline planning, construction, maintenance, and decommissioning. The Pipeline Transport: Economics, CAPEX, OPEX, and Closure training examines the regulatory, environmental, and restoration frameworks crucial during pipeline abandonment and site restoration.

A clear focus is placed on long-term financial planning, economic optimization, and minimizing operational costs. This Pipeline Transport: Economics, CAPEX, OPEX, and Closure program is essential for those involved in infrastructure economics, project management, asset integrity, and closure planning within the pipeline sector.

Targeted Groups:

This Pipeline Transport: Economics, CAPEX, OPEX, and Closure training targets professionals seeking specialized knowledge and skills:

- Pipeline engineers and project managers.
- Operations and maintenance supervisors.
- Cost controllers and financial analysts in energy projects.
- Professionals in the oil, gas, and petrochemical industries.
- Asset management and capital budgeting personnel.
- Environmental consultants and closure planners.
- Government regulators and compliance officers.
- Infrastructure economists and investment planners.
- Procurement and contract management officers.
- Engineers are involved in planning for the end-of-life of assets.

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Course Objectives:

Participants will achieve the following objectives by the Pipeline Transport: Economics, CAPEX, OPEX, and Closure course:

- Understand pipeline transport systems and the economic drivers that influence them.
- Analyze capital expenditures CAPEX and operating expenditures OPEX for pipeline infrastructure.
- Evaluate economic feasibility using cost-benefit analysis.
- Apply financial modeling to pipeline lifecycle stages.
- Identify key cost centers and cost optimization techniques.
- Understand asset depreciation, ROI, and payback analysis.
- Interpret the economic implications of pipeline failures.
- Assess abandonment, remediation, and closure obligations.
- Estimate the costs of decommissioning and site restoration.
- Develop long-term financial plans for pipeline operations.
- Examine regulatory, legal, and environmental frameworks.
- Align economic analysis with operational strategies.
- Improve budgeting accuracy and risk mitigation skills.
- Forecast future expenditures across pipeline assets.
- Translate technical data into financial decision-making insights.

Targeted Competencies:

Participants will gain the following competencies during the Pipeline Transport: Economics, CAPEX, OPEX, and Closure program:

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- Mastery in the economic evaluation of pipeline projects.
- Ability to budget and forecast pipeline CAPEX and OPEX.
- Skills in life-cycle costing and cost optimization.
- Understanding of abandonment cost modeling.
- Competence in regulatory and financial compliance.
- Insight into environmental cost drivers and mitigation.
- Strategic thinking in long-term asset financial planning.
- Technical knowledge transfer into economic frameworks.
- Proficiency in closure project cost assessments.

Course Content:

Unit 1: Fundamentals of Pipeline Transport Systems:

- Overview of pipeline systems: oil, gas, water, and chemicals.
- Comparison of pipeline transport vs. other methods.
- Key technical components of pipeline infrastructure.
- Planning and design considerations.
- Safety standards and integrity management.
- Route selection and geographic constraints.
- Legal frameworks influencing transport design.
- Stakeholder engagement during pipeline development.
- Integration of transport infrastructure in global supply chains.

Unit 2: Capital Expenditure CAPEX in Pipeline Projects:

- Definition and scope of pipeline CAPEX.
- Budgeting for pipeline planning and construction.
- Cost breakdown: materials, labor, equipment, land.
- CAPEX estimation methods: top-down vs. bottom-up.
- Tools for capital budgeting in pipeline projects.
- Key Cost Drivers in Pipeline Project Development.
- Managing cost escalation and delays.
- CAPEX benchmarking and performance indicators.
- Financial documentation and investor reporting.

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Unit 3: Operational Expenditure OPEX and Optimization:

- Scope of OPEX in pipeline operations.
- Fixed vs. variable operating costs.
- Preventive and predictive maintenance expenses.
- Utility costs and energy consumption.
- Personnel and logistics expenditure.
- Pipeline monitoring and inspection systems.
- Real-time data use in cost control.
- Reducing OPEX through automation and digitalization.
- Financial reporting and operational cost transparency.

Unit 4: Economic Evaluation and Financial Modeling:

- Life-Cycle Cost Analysis LCCA for Pipelines.
- Net present value NPV and internal rate of return IRR.
- Cost-benefit analysis in transport infrastructure.
- Payback period and sensitivity analysis.
- Economic Impact of Pipeline Downtime and Failures.
- Decision-making under uncertainty in pipeline investments.
- Portfolio analysis for multiple pipeline assets.
- Forecasting models for long-term expenditure.
- Strategic financial planning for pipeline networks.

Unit 5: Site Abandonment, Restoration, and Closure Costs:

- Regulatory requirements for site closure.
- Environmental obligations in decommissioning.
- Decontamination and dismantling procedures.
- Stakeholder and community engagement during closure.
- Restoration cost estimation models.
- Planning for abandonment from project inception.
- Financial provisioning for closure activities.
- Risk and Liability Management in Pipeline Closure.
- Case Studies: Global Pipeline Closure Best Practices.

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Final Insights & Key Takeaways:

This Pipeline Transport: Economics, CAPEX, OPEX, and Closure course provides a comprehensive roadmap for understanding the entire economic lifecycle of pipeline transport systems. From budgeting and forecasting to decommissioning and restoration, participants will be equipped with practical tools and financial insights to support their decision-making. It prepares professionals to manage CAPEX and OPEX with confidence, aligning pipeline projects with economic and regulatory expectations. By the end, learners will possess an integrated vision of cost-effective and compliant pipeline asset management.