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COURSE BROCHURE

Advanced AI in Procurement and Supply Chain Management Training Course

15 – 26 August 2027
Muscat

Advanced AI in Procurement and Supply Chain Management Training Course

Ref: 8_229 **Date:** 15 – 26 August 2027 **Location:** Muscat **Fees:** 11700 GBP

Advanced AI in Procurement and Supply Chain Management is a 2-week training course for procurement, supply chain, category and logistics managers, and it ends with an AI procurement and supply chain roadmap each participant takes back to the function. Volatile demand, supplier disruption and pressure on working capital mean buyers and planners can no longer rely on spreadsheets and last year's averages. Jupiter Prime Training runs this course on AI in procurement and supply chain.

Why AI in Procurement and Supply Chain Matters Now

Three forces shape AI in procurement and supply chains today: disruptions from geopolitics, weather and supplier failure that punish slow reactions; finance directors who want inventory and spend cut without service loss; and sustainability and ethical sourcing expectations that require visibility deep into supplier tiers. A pharmaceutical distributor that forecasts demand by SKU and location protects availability while holding less stock; a construction firm that misses early supplier distress signals can see projects stall. The course rests on the Supply Chain Operations Reference SCOR model, ISO 20400 for sustainable procurement, ISO 28000 for supply chain security management and ISO/IEC 42001 for AI management systems.

Who Gains Most from AI in Procurement and Supply Chain

- Those who own category strategies, sourcing events and supplier selection
- Those who negotiate, draft and monitor supply contracts and their obligations
- Those who plan demand, inventory and replenishment across warehouses and stores
- Those who run transport, distribution networks and logistics service providers
- Those who track supplier performance, risk and sustainability across tiers

Procurement and supply chain functions gain most when a category manager, a demand planner and a logistics lead attend together and agree one shared view of suppliers, stock and flows.

AI in Procurement and Supply Chain Capabilities

Buyers, planners and logistics heads leave able to turn spend, contract and movement records into earlier and sharper sourcing and stock decisions:

- Build spend cubes with AI classification to expose savings and maverick buying — for category strategy
- Design AI-assisted sourcing events, bid evaluation and supplier scoring — for award decisions
- Calculate demand forecasts and safety stock with machine learning models — for inventory and service targets
- Apply route and network optimisation to transport and warehouse flows — for logistics cost and lead time
- Test supplier risk prediction from financial, news and delivery signals — for continuity planning
- Specify controls for data quality, bias and accountability in procurement AI — for audit and compliance owners

Key AI in Procurement and Supply Chain Terms

- Spend cube — a multi-dimensional view of spend by supplier, category and business unit used to find savings opportunities.
- Supplier risk scoring — rating suppliers on financial, operational, geopolitical and sustainability risks using combined internal and external signals.
- Safety stock — extra inventory held to protect service levels against demand and supply uncertainty.
- Supply chain control tower — a central dashboard giving end-to-end visibility of orders, stock and shipments with alerts for exceptions.
- SCOR model — a reference framework describing supply chain processes as plan, source, make, deliver, return and enable.
- Contract analytics — using natural language processing to extract clauses, obligations and risks from large volumes of contracts.

AI in Procurement and Supply Chain Day by Day

Day 1: The Intelligent Supply Chain Landscape

- SCOR Model Processes — Locating AI Opportunities From Plan to Return
- Disruption and Volatility Trends — Implications for Sourcing Resilience
- Procurement Technology Stack — eSourcing, Contract and Supplier Platforms
- Generative and Predictive AI — Distinct Uses for Buyers and Planners
- Function Maturity Assessment — Data, Systems and Skills Baseline

Day 2: Spend Analytics and Category Insight

- AI Spend Classification — Cleansing and Coding Purchase Lines
- Spend Cube Construction — Supplier, Category and Business Unit Views
- Maverick Spend Detection — Off-Contract and Policy Breaches
- Price Benchmarking Models — Should-Cost and Market Index Comparisons
- Category Opportunity Sizing — Prioritising Sourcing Waves

Day 3: AI-Assisted Sourcing and Supplier Selection

- Supplier Discovery Tools — Finding and Pre-Qualifying New Sources
- Bid Evaluation Models — Weighted Scoring and Total Cost of Acquisition
- Negotiation Support Analytics — Price Elasticity and Fallback Positions
- ISO 20400 Criteria — Embedding Sustainability in Award Decisions
- Automated Tail-Spend Buying — Catalogues and Guided Purchasing

Day 4: Contract Analytics and Generative AI for Procurement Documents

- Clause Extraction With Natural Language Processing — Obligations and Renewal Terms
- Contract Risk Flagging — Liability, Indexation and Termination Exposure
- Generative Drafting of Tenders and Specifications — Templates and Review Steps
- Supplier Correspondence Assistants — Clarifications and Query Handling
- Obligation Tracking — Linking Contract Terms to Performance Data

Day 5: Supplier Risk and Performance Prediction

- Supplier Risk Scoring Models — Financial, Operational and Geopolitical Signals
- News and Sentiment Monitoring — Early Warning of Supplier Distress
- Multi-Tier Mapping — Visibility Beyond First-Tier Suppliers
- Supplier Scorecards — On-Time, Quality and Responsiveness Measures
- ISO 28000 Practices — Supply Chain Security Controls

Day 6: Demand Forecasting and Inventory Optimisation

- Machine Learning Demand Forecasts — SKU and Location Level Accuracy
- Promotion and Event Uplift Modelling — Planning for Demand Spikes
- Safety Stock Optimisation — Service Level Versus Working Capital
- Multi-Echelon Inventory Planning — Balancing Stock Across the Network
- Forecast Accuracy Metrics — MAPE, Bias and Forecast Value Added

Day 7: Logistics and Network Optimisation

- Route Optimisation Algorithms — Fleet Utilisation and Delivery Windows
- Warehouse Slotting and Picking Optimisation — Throughput and Labour Use
- Freight Rate Prediction — Carrier Selection and Mode Choice
- Network Design Scenarios — Depot Location and Service Coverage
- Carbon Footprint Estimation — Emissions per Shipment and Route

Day 8: Control Towers and Real-Time Visibility

- Supply Chain Control Tower Design — Data Feeds and Exception Alerts
- Shipment Tracking and ETA Prediction — Customer Promise Accuracy
- Disruption Response Playbooks — Scenario Triggers and Countermeasures
- Digital Twin Simulation — Testing Network Changes Before Committing
- Sales and Operations Planning Integration — Aligning Demand and Supply Decisions

Day 9: Responsible AI and Data Stewardship in the Supply Chain

- Master Data Quality — Supplier, Item and Location Records
- ISO/IEC 42001 Controls — Accountability for Procurement AI Systems
- Bias in Supplier Selection Models — Fair Access for Small and Diverse Suppliers
- Explainable Recommendations — Audit Trails for Award and Stock Decisions
- Data Sharing With Partners — Confidentiality and Contractual Safeguards

Day 10: Building the AI Procurement and Supply Chain Roadmap

- Opportunity Prioritisation — Applying Day Two Category Sizing to Roadmap Choices
- Forecasting and Inventory Workstream — Applying Day Six Models to Live SKUs
- Risk and Resilience Workstream — Applying Day Five and Eight Signals
- Benefit Tracking Framework — Savings, Working Capital and Service Measures
- Roadmap Assembly — Phasing, Platforms, Data Owners and Milestones

Applying AI in Procurement and Supply Chain After the Course

- Run an AI spend classification on the last year's purchase lines and present the top three category savings opportunities to the head of procurement.
- Build a machine learning forecast for twenty high-value SKUs and compare its accuracy and safety stock with the current planning method.

AI in Procurement and Supply Chain Questions FAQ

What is AI in procurement and supply chain management, and why does it matter now?

AI in procurement and supply chain management is the use of machine learning, optimisation and generative tools across sourcing, contracts, planning and logistics. It matters now because disruption and cost pressure demand faster, better-informed buying and stock decisions than manual methods allow.

Which roles gain most from advanced AI in procurement and supply chain training?

Category and procurement managers, demand and inventory planners, logistics leads and supplier risk owners gain most from advanced AI in procurement and supply chain training. They make the sourcing, stock and transport decisions AI can sharpen.

How is an AI in procurement and supply chain course different from a general procurement course?

An AI in procurement and supply chain course focuses on analytics, forecasting, optimisation and AI controls applied to buying and flows. A general procurement course covers sourcing processes, negotiation and contract basics without the data and AI methods.

What do participants bring back from AI in procurement and supply chain training?

Participants bring back a spend cube approach, supplier risk scoring model, demand forecasting method, logistics optimisation scenarios and a benefit tracking framework. You can use them straight away to choose the first AI initiatives in your function.

AI in Procurement and Supply Chain: The Way Forward

The AI procurement and supply chain roadmap phases spend, sourcing, forecasting, logistics and risk initiatives with named data owners and milestones. The first decision it informs is which category or SKU range moves to AI-supported decisions first. Procurement, planning and logistics leads use it together, and the benefit measures are worth revisiting after the first sourcing wave closes.