



Exam Preparation Course Learning Outcomes

CSCM

Certified Supply
Chain Manager



International
Supply Chain
Education Alliance

CSCM exam preparation course

Learning Outcomes

Module I: Supply chain strategy

Module 1: Supply Chain Management Essentials

- Supply chain
- Value chain and Value Network
- Supply Chain Management Evolution
- Business processes in the supply chain
- Push and pull processes
- Supply chain Flows

Module 2: Strategic Planning in the Supply Chain

- Supply chain management decision levels
- Competitive strategy
- Relationship between responsiveness and cost
- Strategic fit
- Models used for strategic planning

Module 3: Supply Chain Risk Management

- Risk assessment
- Risk evaluation
- Preventive risk mitigation strategies
- Crisis management

Module 4: Business Processes and Metrics

- The process-oriented organization: BPO
- Strategic and tactical level supply chain business processes
- Tactical-operational level supply chain business processes
- Supply chain metrics
- Benchmarking

Module II: Logistics

Module 5: Logistics – Transport in the Supply Chain

- Relationship between logistics and supply chain management
- Transportation modes
- International transport: Incoterms
- Transportation mode selection
- Transportation risk management

Module 6: Logistics – Distribution Networks

- Distribution channels and distribution networks
- Role of facilities in the distribution network
- Distribution network design
- Network configuration changes
- Impact of facilities quantity in the distribution network
- Qualitative analysis to determine facilities location
- Quantitative analysis to determine facilities location
- 3PL and 4PL providers

Module 7: Logistics – Inventory Management

- Using inventory to balance demand and supply
- Using inventory to decouple supply chain stages
- Distribution inventory and manufacturing inventory
- Traditional replenishment policies
- Periodic review policy
- Continuous review policy
- Safety inventory
- MRP: Material Requirement Planning
- DDMRP: The evolution of the traditional MRP

Module 8: Bullwhip Effect

- Bullwhip effect and its consequences
- Impact of delays on the bullwhip effect
- Impact of human behavior on the bullwhip effect
- Impact of variability on the bullwhip effect
- Impact of complexity on the bullwhip effect

Module III: Tactical Planning

Module 9: Introduction to Sales and Operations Planning (S&OP) / Integrated Business Planning (IBP)

- S&OP / IBP Objectives
- The S&OP cycle
- S&OP / IBP maturity levels

Module 10: Products and services management

- Product portfolio based on economic choice
- Competitive environment analysis – BCG and GE / McKinsey Models
- Product life cycle
- Postponement and product personalization

Module 11: Demand Management

- Demand management process
- Forecasting Methods
- Historical data analysis
- Forecasting using exponential smoothing
- Forecasting using linear regression
- Forecasting seasonal demand
- Forecasting intermittent demand
- Forecasting using multiple regression
- Forecasting using Machine Learning
- Forecasting demand of new products and services
- Forecast performance
- Demand shaping

Module 12: Supply Management

- Aggregate planning strategies
- Aggregate planning using linear programming
- Creating an objective Function
- Identifying constraints
- Aggregate planning using Excel Solver

Module 13: Consensus, Prioritization and Strategic Planning Integration

- S&OP executive meeting prerequisites
- S&OP executive meeting participants
- Demand prioritization
- Strategic planning reconciliation

Module IV: Relationships Management

Module 14: Supply Chain Relationships

- Relationship levels
- Relationship models
- Agreements / Contracts
- Agreements negotiation
- Relational contracts
- Relationship obstacles

Module 15: Customer Relationship Management

- Customer segmentation based on value
- Operational CRM
- Analytical CRM
- Role of CRM in demand planning

Module 16: Supplier Relationship Management

- Source to Contract Cycle (S2C)
- Procure to Pay Cycle (P2P)
- Supplier evaluation
- Supplier selection by product type
- Supplier segmentation based on performance and strategic potential
- Supplier relationship management based on supplier segmentation
- Outsourcing

Module 17: Supply Chain Collaboration Tools

- Supply chain collaboration tools selection
- "Quick Response" (QR) in the fashion industry
- "Efficient Consumer Response (ECR)" in the Fast Moving Consumer Goods Industry (FMCG)"
- Continuous Replenishment Program (CRP)
- Vendor-Managed Inventory (VMI)
- Collaborative Planning, Forecasting and Replenishment (CPFR)
- Collaboration in the Demand-Driven supply chain

Module V: Supply Chain Optimization

Module 18: Information Systems and Digital Supply Chain

- Information systems
- Data and information value
- Evolution of supply chain management applications
- Applications that complement ERP systems
- Customer relationship management (CRM) applications
- Supplier Relationship Management (SRM) applications
- Warehouse Management Systems (WMS) applications
- Transportation Management Systems (TMS) applications
- Digital supply chain
- Big Data Analysis
- Data Warehouses and Data Lakes
- Artificial intelligence and Machine Learning
- Distributed Ledger / Blockchain
- Internet of things (IoT)
- Demand Driven MRP (DDMRP) applications

Module 19: Lean Six Sigma

- The seven wastes of Lean
- Five principles of Lean manufacturing
- Impact of Lean on inventory
- Pull inventory replenishment based on Kanban
- Six Sigma quality
- Cost of Poor Quality (COPQ)
- DMAIC and DFSS methodologies
- Lean Six Sigma essential tools

Module 20: Theory of Constraints (TOC)

- Five Focusing Steps
- Drum-Buffer-Rope (DBR)
- Inventory buffers
- Time buffers
- Capacity buffers
- BOM and distribution network buffers

Module 21: Demand-Driven Supply Chain (DDSC) Framework

- Demand-driven value network
- DDSC impact on niche markets
- DDSC impact on innovative industries
- DDSC impact on short life cycle products
- DDSC impact on high product variety portfolios
- Make-and-sell supply chains vs Demand-driven supply chains

Module 22: Introduction to Demand Driven Material Requirement Planning - DDMRP

- Traditional MRP in today's business environment
- Inventory positioning factors
- Decoupled materials explosion
- Dynamic buffer adjustments
- Difference between DDMRP planning and execution
- DDMRP execution alerts
- Comparing reorder point (ROP) replenishment policies with DDMRP

Module VI: Complementary Skills

Module 23: Financial Key Performance Indicators

- Relationship between financial, operational and cost accounting
- SCM Impact on the Financial Statements
- SCM impact on return on assets (ROA)
- SCM impact on required working capital
- EBITDA and OCF
- Cash-to-cash cycle
- Break-even point analysis
- Inventory valuation and cost systems
- Throughput accounting fundamentals

Module 24: Leadership and Change Management

- Supply chain manager skills requirements
- Leadership and management
- Power and empowerment
- Situational leadership styles
- Leading teams / communities
- Team and individual motivation
- Change management

Module 25: Introduction to Project Management

- Projects and their constraints
- Initiation processes
- Planning processes
- Execution Processes
- Monitoring and control processes
- Closing Processes
- Project evaluation

Module 26: Sustainable Supply Chain Management

- The 3 Pillars of Sustainability
- United Nations Sustainable Development Goals
- Methods to Trace Natural Resource Use and Pollution Over Supply Chains
- Circular economy
- Life cycle assessment (LCA)
- Sustainability and new product design
- Sustainability and procurement
- Sustainability and production
- Sustainability and transportation

| Course Details

Pre-requisites: None

Classroom time: 40 hours

| Certification Exam Details

Assessment Method: Multiple Choice Exam

Pass Grade: 70%

Regulatory Authority: IISB

(ISCEA International Standards Board)

| About IISB

IISB (ISCEA International Standards Brand) is the authority behind ISCEA's International Supply Chain Standards. It is conformed by a 24 member Board of Directors led by a Secretary-General and a President. IISB designates multiple committees conformed by a selected group of Global Supply Chain Experts from Public and Private Organizations, to develop the BoK (Body of Knowledge) for each certification program.

| About ISCEA

The International Supply Chain Education Alliance (ISCEA) was the first organization certifying Supply Chain Professionals around the globe, and it remains the worldwide authoritative resource for Supply Chain Career Validation with thousands of certificate holders commanding top-tier salaries.

ISCEA's mission is to provide Total Supply Chain Knowledge to manufacturing and service industry professionals through Education, Certification and Recognition.

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