Model Curriculum

QP Name: Purchase Executive - Construction

QP Code: ICE/CON/Q0901

Version: 1.0

NSQF Level: 3.5

Model Curriculum Version: 1.0

The Institution of Civil Engineers Society (ICES)
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Training Parameters

Sector	Construction		
Sub-Sector	Real Estate and Infrastructure Construction		
Occupation	Procuring goods, materials and services		
Country	India		
NSQF Level	3.5		
Aligned to NCO/ISCO/ISIC Code	NCO/2015/3323.0600		
Minimum Educational Qualification and Experience	**S. No.**	**Academic/Skill Qualification (with Specialization - if applicable)**	**Required Experience (with Specialization - if applicable)**
	1	10th Grade pass	
	OR		
	2	Previous relevant Qualification of NSQF Level 3	1.5 years of Relevant Industry Experience
Pre-Requisite License or Training	Not Applicable		
Minimum Job Entry Age	As per Govt. Norms		
Last Reviewed On	08-05-2025		
Next Review Date	08-05-2028		
NSQC Approval Date	08-05-2025		
QP Version	1.0		
Model Curriculum Creation Date	08-05-2025		
Model Curriculum Valid Up to Date	08-05-2028		
Model Curriculum Version	1.0		
Minimum Duration of the Course	450 Hours		
Maximum Duration of the Course	450 Hours		

Program Overview

Training Outcomes

- Efficiently source and procure construction materials that meet project specifications.
- Maintain strong relationships with suppliers and ensure timely delivery of materials.
- Manage inventory to minimize costs and avoid stockouts.
- Ensure compliance with procurement processes and quality standards.
- Optimize procurement operations to align with project timelines and budget.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
ICE/CON/N0701: Carry out material sourcing and procurement activities NOS Version No. 1.0 NSQF Level 3.5	**25:00**	**60:00**	**00:00**	**00:00**	**85:00**
Module 1: Introduction to the Construction Industry and the Role of a Purchase Executive in Material Procurement	03:00	00:00	00:00	00:00	03:00
Module 2: Supplier Sourcing, Screening, and Selection for Construction Materials	12:00	30:00	00:00	00:00	42:00
Module 3: Procurement Operations and Contract Specifications for Construction Materials	10:00	30:00	00:00	00:00	40:00
ICE/CON/N0901: Establish and maintain supplier relationships NOS Version No. 1.0 NSQF Level 3.5	**25:00**	**40:00**	**20:00**	**00:00**	**85:00**
Module 4: Supplier Development and Evaluation	12:00	20:00	10:00	00:00	42:00
Module 5: Supplier Collaboration, Coordination, and Timelines.	13:00	20:00	10:00	00:00	43:00
ICE/CON/N0902: Perform inventory control, receiving and tracking operations. NOS Version No. 1.0 NSQF Level 3.5	**20:00**	**40:00**	**20:00**	**00:00**	**80:00**
Module 6: Carry out Inventory Planning and Control	06:00	13:00	07:00	00:00	26:00

Module 7: Inventory Management Systems and Material tracking	07:00	14:00	07:00	00:00	28:00
Module 8: Carry Sub- functions of the Material Control Department	07:00	13:00	06:00	00:00	26:00
ICE/CON/N0903: Assist Production and workflow (Related to material availability) NOS Version No. 1.0 NSQF Level 3.5	**20:00**	**40:00**	**20:00**	**00:00**	**80:00**
Module 9: Maintain Quality Control, Compliance and Cost Management	07:00	14:00	06:00	00:00	27:00
Module 10: Coordinating Material Purchase to Support Production Needs	07:00	13:00	07:00	00:00	27:00
Module 11: Carry Inventory and Demand Forecasting	06:00	13:00	07:00	00:00	26:00
ICE/CON/N0904: Maintain Health and Safety in Procurement Activities NOS Version No. 1.0 NSQF Level 3.5	**20:00**	**40:00**	**00:00**	**00:00**	**60:00**
Module 12: Adhere to Health and Safety protocols	20:00	40:00	00:00	00:00	60:00
DGT/VSQ/N0102 – Employability skills NOS Version No. 1.0 NSQF Level 2	**60:00**	**00:00**	**00:00**	**00:00**	**30:00**
Module 13: Employability skills	60:00	00:00	00:00	00:00	60:00
Total Duration	**170:00**	**220:00**	**60:00**	**00:00**	**450:00**

Module Details

Module 1: Introduction to the Construction Industry and the Role of a Purchase Executive in Material Procurement

Mapped to ICE/CON/N0701, v 1.0

Terminal Outcomes:

- State the vision and objectives of the sector.
- Describe the background of construction in India.
- Explain the attributes, role and responsibilities of the Purchase Executive - Construction Material.

Duration: 03:00	Duration: 00:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the objectives of the program on the Purchase Executive - Construction Material • Discuss the key components and stakeholders of the construction sector, including developers, contractors, suppliers, and regulatory bodies, and their roles in a construction project. • Discuss the core responsibilities of a Purchase Executive in the construction sector, focusing on material procurement, supplier management, inventory control, and cost management to ensure project efficiency and quality. • Identify and categorize various types of construction materials (e.g., aggregates, cement, steel, wood, and finishing materials) and understand their uses, characteristics, and importance in different stages of construction projects. • Explain the principles of supply chain management specific to the construction industry, including procurement strategies, logistics, inventory management, and the impact of lead times and supplier relationships on project timelines. • Discuss the legal, regulatory, and compliance standards relevant to the procurement of construction materials including environmental regulations, safety standards, and quality certifications	

necessary to ensure adherence to industry as per norms and project specifications.	
Classroom Aids:	
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.	
Tools, Equipment and Other Requirements	
N/A	

Module 2: Supplier Sourcing, Screening, and Selection for Construction Materials

Mapped to ICE/CON/N0701, v 1.0

Terminal Outcomes:

- Accurately identify and source construction materials that meet project requirements.
- Evaluate suppliers to select the best value for money

Duration: 12:00	Duration: 30:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Elaborate the construction material requirements based on project specifications. • Discuss how to conduct market research to identify potential suppliers. • Describe supplier evaluation criteria, including price, quality, delivery time, and reliability. • Explain the process of comparing supplier quotations and technical specifications. • Describe the principles of material selection based on comprehensive evaluation. • Assess material needs as per project specs, compare vendor quotations, select the best option, and complete GeM portal registration for procurement	• Conduct basic research to identify suppliers for the required construction materials. • Evaluate and compare supplier quotations using a sample case. • Prepare a straightforward supplier comparison report tailored to project requirements. • Conduct mock interviews to assess supplier reliability and material quality. • Role-play the material selection process based on supplier offerings.
Classroom Aids:	
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.	
Tools, Equipment and Other Requirements:	
• Computer with internet access • Procurement software • Communication devices (phone, email) • Stationery (notebooks, pens) • Software for Tracking Materials and Procurement • Digital camera for recording supplier facilities	

Module 3: Procurement Operations and Contract Specifications for Construction Materials

Mapped to ICE/CON/N0701, v 1.0

Terminal Outcomes:

- Efficiently manage the procurement process from purchase order issuance to contract negotiation.
- Maintain accurate procurement records and ensure supplier adherence to contracts.

Duration: 10:00	Duration: 30:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Understand the process of preparing and issuing purchase orders. • Learn negotiation principles and basic contract law for effective procurement. • Comprehend the steps involved in monitoring purchase order fulfillment and delivery schedules. • Study the importance of maintaining accurate and up-to-date procurement records. • Gain knowledge of different types of construction materials and their common applications. • Identify key clauses in material supply contracts and their implications. • Understand how to verify supplier compliance with contract terms and quality standards. • Learn how to handle delays, disputes, or changes in supply agreements. • Explore procurement budgeting and cost control methods. • Understand procurement risks and mitigation strategies in construction projects. • Familiarize with ethical procurement practices and anti-corruption measures.	• Draft a purchase order for a sample project, ensuring accuracy in quantity, price, and terms. • Simulate a negotiation session with suppliers to achieve optimal pricing and terms. • Develop a monitoring plan to track purchase order fulfillment. • Practice maintaining and organizing procurement records and documentation. • Conduct a quality control check for received materials. • Match delivery notes with purchase orders to confirm correct deliveries. • Identify and report issues with delayed or damaged material deliveries. • Fill out a basic material inspection checklist during delivery.

• Use procurement software or templates to streamline ordering and tracking. • Learn how to coordinate with inventory and site teams for timely material delivery.	

Classroom Aids:
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.
Tools, Equipment and Other Requirements:
• Computer with internet access • Procurement software • Communication devices (phone, email) • Stationery (notebooks, pens) • Software for Tracking Materials and Procurement • Digital camera for recording supplier facilities

Module 4: Supplier Development and Evaluation

Mapped to ICE/CON/N0901, v 1.0

Terminal Outcomes:

- Efficiently manage and update a supplier database.
- Conduct thorough supplier performance evaluations.
- Develop supplier capabilities through targeted initiatives.
- Resolve supplier issues to maintain procurement process flow.

Duration: 12:00	Duration: 20:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the importance and methods of maintaining a supplier database. • Understand key performance metrics for supplier evaluation. • Discuss strategies for supplier development and capacity building. • Identify common supplier-related issues and methods for resolution. • Understand the principles and practices of corrective actions in supplier management. • earn how to conduct basic supplier audits and site visits. • Create and use a simple supplier evaluation checklist. • Understand the role of communication in building long-term supplier relationships. • Recognize the importance of ethical standards in supplier interactions. • Maintain records of supplier performance for future reference and decisions.	• Demonstrate the process of creating and updating a supplier database using relevant software tools. • Conduct a mock supplier performance evaluation using predefined metrics. • Develop a supplier improvement plan based on evaluation outcomes. • Resolve a simulated supplier-related issue using a structured approach. • Create a case study on supplier development initiatives and present findings. • Engage in role-playing exercises to simulate negotiations for supplier development. • Practice implementing corrective actions through scenario-based exercises.
Classroom Aids:	
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.	
Tools, Equipment and Other Requirements:	

- Supplier database management tools (e.g., Excel, Google Sheets)
- Performance evaluation templates and checklists
- Case study materials and role-play scenarios
- Video conferencing tools for supplier meetings (e.g., Zoom, MS Teams)
- Presentation software (e.g., PowerPoint, Google Slides)
- Training manuals and guides for supplier development programs

Module 5: Supplier Collaboration, Coordination, and Timelines

Mapped to ICE/CON/N0901, v 1.0

Terminal Outcomes:

- Establish and maintain strong supplier relationships.
- Effectively communicate project needs to suppliers.
- Foster a collaborative environment through regular engagement.
- Implement recognition programs to enhance supplier partnerships.

Duration: 13:00	Duration: 20:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Describe the importance of building strong relationships with suppliers. • Explain effective communication techniques for sharing project requirements. • Understand the value of regular supplier meetings and feedback sessions. • Identify the components of a successful supplier recognition program. • Discuss the role of collaboration in improving supplier performance. • Discuss the importance of adhering to timelines. • Learn how to resolve misunderstandings or conflicts with suppliers professionally. • Understand the impact of transparency and trust on long-term partnerships. • Practice writing clear and respectful emails or messages to suppliers. • Recognize the value of cultural awareness when dealing with diverse suppliers. • Discuss how mutual goal setting can lead to better project outcomes.	• Simulate supplier meetings to practice effective communication and problem-solving. • Develop a communication plan for sharing project information with suppliers. • Conduct a role-playing exercise to practice negotiation and collaboration skills. • Create a feedback loop system to regularly assess and address supplier concerns. • Design a supplier recognition program based on performance metrics and outcomes. • Participate in a workshop on relationship-building techniques with suppliers. • Draft a supplier communication strategy document incorporating best practices.

Classroom Aids:
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.
Tools, Equipment and Other Requirements:
• Communication software (e.g., Slack, MS Teams) • Project management tools (e.g., Trello, Asana) • Templates for meeting agendas and minutes • Recognition program design guides and templates • Feedback and survey tools (e.g., Google Forms, SurveyMonkey) • Role-play scripts and scenarios for supplier negotiations • Training materials on communication and relationship management

Module 6: Carry out Inventory Planning and Control

Mapped to ICE/CON/N0902, v 1.0

Terminal Outcomes:

- Develop a comprehensive understanding of inventory control policies and procedures.
- Demonstrate the ability to determine optimal inventory levels to balance supply and demand.
- Conduct regular inventory audits to maintain stock accuracy and minimize discrepancies.

Duration: 06:00	Duration: 13:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the importance of inventory control in supply chain management. • Understand the principles of demand forecasting and its impact on inventory levels. • Discuss the concept of carrying costs and their influence on inventory management. • Outline the steps involved in developing and implementing inventory control policies and procedures. • Learn the methods for conducting inventory audits and resolving discrepancies. • Identify different types of inventory systems (e.g., periodic vs. perpetual, manual vs. digital) and select appropriate systems for specific projects. • Understand the role of inventory turnover rate in measuring the efficiency of material usage. • Learn how to classify materials using ABC analysis for prioritizing inventory control efforts. • Study the process of setting minimum and maximum stock levels to avoid stockouts and overstocking. • Practice using basic inventory tracking tools (e.g., spreadsheets or inventory management software) to record and monitor stock levels. • Understand the link between inventory control and procurement planning to ensure timely material availability. • Discuss the importance of real-time data in	• Develop an inventory control policy document based on given case scenarios. • Use demand forecasting techniques to calculate optimal inventory levels. • Analyze a dataset to adjust inventory levels and prevent stockouts or excess inventory. • Perform a mock inventory audit to identify discrepancies and suggest corrective actions. • Implement a continuous improvement plan for inventory management practices. • Create a simulation to adjust stock levels dynamically in response to demand changes. • Conduct a role-play on addressing discrepancies discovered during inventory audits.

improving inventory visibility and decision-making. • Explore basic strategies to manage slow-moving, obsolete, or excess inventory.	
Classroom Aids:	
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.	
Tools, Equipment and Other Requirements:	
• Inventory management software (e.g., SAP, Oracle) • Spreadsheets for demand forecasting and carrying cost analysis • Barcode scanners • Sample inventory datasets • Audit checklists • Case study documents • Mock inventory stock (for audit simulations)	

Module 7: Inventory Management Systems and Material tracking

Mapped to ICE/CON/N0902, v 1.0

Terminal Outcomes:

- Utilize inventory management systems effectively to optimize stock levels and turnover rates.
- Implement technological tools like barcodes and RFID for enhanced inventory tracking.
- Generate and interpret inventory reports to inform strategic decision-making.

Duration: 07:00	Duration: 14:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Explain the functionalities of inventory management software in construction material procurement. • Understand the benefits and limitations of barcode and RFID technology in inventory tracking. • Learn how to generate different types of inventory reports (e.g., turnover, stock status). • Analyze inventory data to identify trends and potential areas for cost savings. • Discuss the importance of timely and accurate reporting in inventory management. • Understand how digital dashboards and visual reports help monitor stock performance and simplify complex data. • Practice exporting and interpreting inventory reports from software tools (e.g., Excel, ERP systems, or construction-specific platforms). • Learn how automated alerts for low stock, expired materials, or delays support proactive inventory control. • Explore integration between inventory software and procurement systems to streamline order processing and tracking. • Identify key performance indicators (KPIs) used in inventory reporting, such as fill rate, stock accuracy, and order cycle time. • Recognize data security and user access considerations when managing inventory	• Use inventory management software to track stock levels and generate real-time reports. • Implement a barcode or RFID system for inventory tracking in a simulated environment. • Generate inventory turnover and stock status reports for a mock scenario. • Interpret inventory data to identify trends and suggest cost-saving opportunities. • Conduct a case study analysis to identify potential inventory management issues and propose solutions. • Perform a simulation on integrating inventory data with other business processes (e.g., purchasing, sales). • Create a comprehensive report outlining inventory management strategies for an organization.

through digital platforms.	
Classroom Aids:	
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other required stationery.	
Tools, Equipment and Other Requirements:	
• Inventory management software (e.g., Tally, NetSuite) • Barcode printers and scanners • RFID tags and readers • Computer systems with report generation tools • Inventory datasets for analysis • Case study materials • Sample inventory reports	

Module 8: Carry Sub-functions of the Material Control Department

Mapped to ICE/CON/N0902, v 1.0

Terminal Outcomes:

- Define and understand the roles of various sub-functions within the Material Control Department.
- Ensure effective coordination among purchasing, planning, storage, and inventory control.
- Implement best practices across all sub-functions to optimize inventory processes.

Duration: 07:00	Duration: 13:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Define the different sub-functions within the Material Control Department: Purchasing, Planning & Control, Storage, and Inventory Control. • Discuss the roles and responsibilities associated with each sub-function. • Explain best practices for procurement and inventory management in construction materials. • Understand the importance of coordination among different sub- functions to maintain material flow. • Learn the methods for reviewing and updating sub-function processes in response to market changes. • Identify common challenges in each sub-function (e.g., delays in purchasing, space limitations in storage) and propose basic solutions. • Explore how cross-functional communication improves efficiency and reduces duplication of efforts in material handling. • Understand how performance indicators (like lead time, stock turnover, and supplier reliability) are used to evaluate sub-function effectiveness. • Learn how digital platforms can support integration and data sharing across all material control sub-functions. • Practice creating a simple workflow chart showing interaction among sub- functions in a typical construction project.	• Create a process map outlining the interactions between the sub-functions of the Material Control Department. • Develop a best practices guide for the procurement of construction materials. • Conduct a simulation exercise on coordinating between purchasing and inventory control to prevent delays. • Review and update storage and inventory control processes based on a changing market scenario. • Perform a gap analysis to identify improvement areas in the current sub-function processes. • Implement a mock exercise on cross-departmental coordination for optimized material flow. • Develop a strategy document for adapting sub-function processes to evolving project needs.

Classroom Aids:
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.
Tools, Equipment and Other Requirements:
• Process mapping software (e.g., Lucidchart, Microsoft Visio) • Case studies on material control management • Templates for best practices guides and strategy documents • Materials for mock procurement and storage exercises • Scenario-based learning materials • Simulation software for inventory management • Project management tools (e.g., Trello, Asana)

Module 9: Maintain Quality Control, Compliance and Cost Management

Mapped to ICE/CON/N0903, v 1.0

Terminal Outcomes:

- Ensure that all procured materials meet quality standards and regulatory requirements.
- Manage procurement costs while maintaining quality and supplier reliability.
- Develop purchasing plans aligned with project timelines.

Duration: 07:00	Duration: 14:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Understand the criteria for establishing quality standards for construction materials in consultation with project teams. • Learn the procedures for inspecting and verifying the quality of materials received. • Study the legal and regulatory standards applicable to construction materials, including environmental and safety regulations. • Explore the factors affecting material costs and strategies to balance price, quality, and supplier reliability. • Understand the development of a purchasing plan that aligns with project timelines and avoids material shortages. • Learn how to document and manage material non-conformance reports (NCRs) and initiate corrective actions with suppliers. • Analyze case studies where poor quality materials led to construction delays or failures and identify prevention measures. • Understand how to collaborate with QA/QC teams to align procurement with quality assurance practices. • Develop skills to evaluate supplier- provided test certificates, product warranties, and conformance to technical specifications.	• Develop and document quality criteria for various construction materials in consultation with a simulated project team. • Perform hands-on inspection and verification of materials received against purchase orders and specifications. • Maintain detailed records of quality checks, supplier performance, and non-compliance issues using a digital database. • Simulate coordination with suppliers to resolve quality-related issues, including drafting emails and making phone calls. • Use checklists to verify that all materials meet legal and regulatory standards, including environmental and safety regulations. • Identify the appropriate quality of materials needed for different construction stages through case studies. • Conduct a cost-benefit analysis to ensure procurement at the best possible cost without compromising quality or supplier reliability.
Classroom Aids:	
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.	
Tools, Equipment and Other Requirements:	

- Quality checklists and standards documents
- Digital inspection tools (e.g., calipers, gauges)
- Sample construction materials (cement, steel, etc.)
- Computer with procurement and inventory management software
- Legal and regulatory standards reference materials
- Communication tools (email templates, phone simulation software)
- Case study materials for role-play and analysis

Module 10: Coordinating Material Purchase to Support Production Needs

Mapped to ICE/CON/N0903, v 1.0

Terminal Outcomes:

- Ensure efficient procurement of construction materials by analyzing project needs, identifying reliable suppliers, negotiating favorable contracts, and maintaining inventory levels that support smooth production processes.
- Ensure compliance with procurement policies, industry regulations, and health and safety standards throughout the material purchasing process to contribute to the project's successful execution.

Duration: 07:00	Duration: 13:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Understand what supply chain management is and why it is important for getting materials on time and at a good cost in construction projects. • Learn basic negotiation techniques to get better prices and terms from suppliers while keeping a good relationship with them. • Know the basic rules of contract law that apply when making deals with suppliers to ensure everything is fair and legal. • Understand how inventory management helps in planning material needs, avoiding shortages, and reducing extra storage costs. • Learn the meaning of key terms like lead time, stockouts, and carrying cost, and how they affect project progress. • Know how to prepare simple contracts or agreements with suppliers using clear language and standard terms. • Identify what information to include in a purchase agreement (e.g., quantity, delivery time, payment terms). • Understand the importance of teamwork between procurement, site teams, and finance for smooth material flow. • Learn how to follow up with suppliers to check delivery status and handle delays. • Use simple tools (like checklists or spreadsheets) to track orders, deliveries, and payments. • Understand the risks of poor procurement practices, such as delays, extra costs, or legal issues. • Learn how good supplier relationships help reduce problems and build trust for future projects. • Practice basic communication skills (emails,	• Conduct a market analysis to identify and shortlist potential suppliers for construction materials, evaluating them based on price, quality, and delivery capabilities. • Develop and execute negotiation strategies with suppliers, focusing on securing optimal pricing, delivery schedules, and payment terms. • Create and issue purchase orders based on project material requirements, ensuring accuracy in quantities, delivery timelines, and compliance with company standards. • Manage the inventory of construction materials, updating inventory records, monitoring stock levels, and coordinating with the warehouse team to avoid overstock or stockouts. • Perform supplier audits and quality checks on delivered materials to ensure they meet the required specifications, and handle any discrepancies or rejections as necessary. • Collaborate with the project team to ensure that all procured materials are stored and handled according to health and safety regulations, ensuring the safety of workers and the quality of materials.

calls, meetings) when working with suppliers.	

Classroom Aids:

PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.

Tools, Equipment and Other Requirements:

- Supplier performance monitoring software
- Role-play materials (scripts, scenarios)
- Risk assessment and mitigation planning tools
- Negotiation training materials (videos, mock scenarios)
- Communication templates and email drafting tools
- Supply chain mapping software
- Supplier data analytics tools

Module 11: Carry Inventory and Demand Forecasting

Mapped to ICE/CON/N0903, v 1.0

Terminal Outcomes:

- Effectively forecast material demand to align procurement with project needs.
- Minimize inventory holding costs while ensuring timely availability of materials.
- Adjust procurement plans based on consumption patterns and project requirements.

Duration: 06:00	Duration: 13:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Learn simple ways to know how much material is needed for a project using past data and project plans. • Understand the importance of keeping accurate records of how much material is used on site. • Know how to estimate future material needs based on how much has been used already. • Learn about just-in-time (JIT) delivery, where materials arrive only when needed, to save space and reduce storage costs. • Understand how to look at usage patterns to avoid ordering too much or too little. • Know how poor material planning can lead to project delays or increased costs. • Learn how to update material plans when there are changes in project timelines or scope. • Practice using basic tools like spreadsheets or templates to track material usage and plan ahead. • Understand the link between good forecasting and smooth site operations without material shortages. • Learn how to work with site supervisors and engineers to get the right material estimates. • Explore how weather, market changes, or project delays can affect material needs and planning. • Learn how to prepare a simple material requirement plan for a small section of a	• Understand various demand forecasting techniques to determine the quantity of materials to be purchased. • Learn the principles of maintaining accurate records of material consumption and forecasting future needs. • Explore just-in-time inventory techniques and their application in reducing holding costs. • Study the analysis of consumption patterns to adjust procurement plans for efficiency. • Understand the impact of inventory management on project timelines and cost control.

project.	
Classroom Aids:	
PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other requiredstationery.	
Tools, Equipment and Other Requirements:	
• Demand forecasting software • Inventory management software • Just-in-time inventory simulation tools • Data analysis tools (Excel, specialized software) • Case study materials for scenario-based exercises • Audit checklists and tools • Communication templates for supplier updates	

Module 12: Adhere to Health and Safety Protocols

Mapped to ICE/CON/N0904, v 1.0

Terminal Outcomes:

- Understand the importance of health and safety regulations relevant to the construction industry.
- Explain workplace hazards and implement risk assessment methods to prevent incidents.
- Apply standard procedures for reporting accidents, near misses, and unsafe practices.
- Demonstrate the use of Personal Protective Equipment (PPE) in various site conditions.
- Adhere to emergency protocols including fire safety, first aid, and evacuation procedures.
- Promote a safety-first culture among co-workers by adhering to safe working practices.
- Maintain compliance with organizational and statutory health and safety requirements.

Duration: 20:00	**Duration: 40:00**
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
• Understand key legislation and regulatory bodies related to health, safety, and welfare in construction. • Identify different types of workplace hazards and classify them based on their potential impact. • Explain the principles of risk assessment and control measures to minimize exposure to hazards. • Describe the responsibilities of employees and employers under health and safety laws. • Understand procedures for accident reporting, investigation, and documentation. • Learn the correct selection and usage of various types of PPE for specific construction tasks. • Explain emergency response procedures, including fire prevention, first aid, and evacuation planning. • Practice using safety signs, barriers, and warning labels correctly. • Learn about the importance of site inductions and safety briefings before starting work. • Understand the role of safety officers and supervisors in monitoring safe work practices. • Know how to use tools and machinery	• Demonstrate proper inspection and use of PPE, including helmets, gloves, safety shoes, and eye protection. • Identify common site hazards and apply control measures in simulated construction scenarios. • Perform a basic risk assessment on a mock site and recommend corrective actions. • Participate in emergency drills, including evacuation, fire safety, and first aid simulations. • Report incidents and unsafe conditions using organizational procedures and formats. • Safely handle tools, materials, and equipment as per health and safety standards. • Engage in toolbox talks and safety briefings, demonstrating effective communication of hazards and procedures.

safely, and report damaged or unsafe equipment. • Understand the importance of hygiene, clean drinking water, rest breaks, and safe work conditions for overall worker welfare.	

Classroom Aids:

PPT, Laptop, White Board, Marker, Projector & Screen, Audio-visual, Chart paper, other required stationery.

Tools, Equipment and Other Requirements:

- Demand forecasting software
- Inventory management software
- Just-in-time inventory simulation tools
- Data analysis tools (Excel, specialized software)
- Case study materials for scenario-based exercises
- Audit checklists and tools
- Communication templates for supplier updates

Module 13: Employability skills

Mapped to DGT/VSQ/N0102, v 1.0

Terminal Outcomes:

- Discuss the Employability Skills required for jobs in various industries
- Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
- Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan

Duration: 60:00
Theory – Key Learning Outcomes
• **Introduction to Employability Skills Duration: 1 Hour** **After completing this Programme, participants will be able to**: 1. Discuss the importance of Employability Skills in meeting the job requirements Constitutional values - Citizenship Duration: 1 Hour 2. Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen. 3. Show how to practice different environmentally sustainable practices Becoming a Professional in the 21st Century Duration: 1 Hours 4. Discuss 21st century skills. 5. Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations. • **Basic English Skills Duration: 2 Hours** 6. Use appropriate basic English sentences/phrases while speaking • **Communication Skills Duration: 4 Hour** 7. Demonstrate how to communicate in a well -mannered way with others. 8. Demonstrate working with others in a team • **Diversity & Inclusion Duration: 1 Hour** 9. Show how to conduct oneself appropriately with all genders and PwD 10. Discuss the significance of reporting sexual harassment issues in time • **Financial and Legal Literacy Duration: 4 Hours** 11. Discuss the significance of using financial products and services safely and securely. 12. Explain the importance of managing expenses, income, and savings. 13. Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws • **Essential Digital Skills Duration: 3 Hours**

14. Show how to operate digital devices and use the associated applications and features, safely and

securely

15. Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely

- **Entrepreneurship Duration: 7 Hours**

16. Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges

- **Customer Service Duration: 4 Hours**

17. Differentiate between types of customers

18. Explain the significance of identifying customer needs and addressing them

19. Discuss the significance of maintaining hygiene and dressing appropriately

Getting ready for apprenticeship & Jobs Duration: 2 Hours

20. Create a biodata

21. Use various sources to search and apply for jobs

22. Discuss the significance of dressing up neatly and maintaining hygiene for an interview

14. Discuss how to search and register for apprenticeship opportunities

On the Job Training

Mapped to Purchase Executive – Construction, v 1.0

Duration: 60:00

Key Learning Outcomes

- Assess project-specific material requirements by reviewing drawings, BOQs, and site requisitions, and prepare a consolidated material requirement statement under supervision.
- Identify and shortlist approved suppliers for construction materials through market research, GeM portal usage, and existing vendor databases.
- Compare supplier quotations technically and commercially to support selection of cost-effective and specification-compliant materials.
- Prepare and process purchase orders (POs) accurately, ensuring correct quantities, delivery schedules, pricing, and contractual terms.
- Support negotiation activities with suppliers to achieve optimal pricing, delivery timelines, and payment terms while maintaining ethical procurement practices.
- Coordinate with suppliers for order confirmations and delivery schedules, ensuring alignment with site requirements and project timelines.
- Maintain and update supplier records and performance data, including delivery adherence, quality compliance, and responsiveness.
- Assist in conducting supplier performance evaluations using predefined criteria and contribute to corrective or improvement action plans.
- Receive and verify incoming construction materials against purchase orders, delivery challans, and quality specifications at site or store.
- Record material receipts, issues, and balances using inventory registers or digital inventory management systems.
- Monitor minimum and maximum stock levels and report potential stockouts or excess inventory to the supervisor.
- Participate in periodic inventory audits and physical stock verification, identifying discrepancies and supporting corrective actions.
- Coordinate with site engineers and supervisors to ensure timely availability of materials required for ongoing construction activities.
- Track daily material consumption patterns and assist in preparing short-term demand forecasts for procurement planning.
- Support preparation of material requirement plans (MRP) for specific project phases based on work schedules and consumption trends.
- Assist in material quality inspections by checking test certificates, specifications, and visual conformity at receipt.
- Document and report material non-conformance issues (NCRs) and coordinate with suppliers for replacements or corrective action.
- Support cost control activities by tracking material costs against budgets and highlighting variances to the reporting authority.

Annexures

Trainer Requirements

Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
M.Tech/M.E. in Civil Engineering	Civil Engineering	2	in-store keeping/ procurement, Construction field , supply chain management.	1		
B.Tech/B.E (Bachelor's degree)	Civil Engineering	3	in-store keeping/ procurement or Construction field	1		
Diploma	Civil Engineering	4	in-store keeping/ procurement or Construction field	1		

Trainer Certification	
Domain Certification	**Platform Certification**
Recommended that the Trainer is certified for the Job Role: *"Purchase Executive - Construction"*, mapped to the Qualification Pack: "ICE/CON/Q0901, v 1.0". The minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: *"Trainer (VET and skills)"*, mapped to the Qualification Pack: "MEP/Q2601, v 3.0". The minimum accepted score is 80%.

Assessor Requirements

Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
M.Tech/M.E. in Civil Engineering	Civil Engineering	1	in-store keeping/ procurement, Construction field, supply chain management.	1		
B.Tech/B.E (Bachelor's degree)	Civil Engineering	2	in-store keeping/ procurement or Construction field	1		
Diploma	Civil Engineering	3	in-store keeping/ procurement or Construction field	1		

Assessor Certification	
Domain Certification	**Platform Certification**
Recommended that the Assessor is certified for the Job Role: *"Purchase Executive - Construction"*, mapped to the Qualification Pack: "ICE/CON/Q0901, v 1.0". The minimum accepted score is 80%.	Recommended that the Assessor is certified for the Job Role: *"Assessor (VET and skills)"*, mapped to the Qualification Pack: "MEP/Q2701, v 3.0". The minimum accepted score is 80%.

Assessment strategy

This section includes the processes involved in identifying, gathering and interpreting information to evaluate the Candidate on the required competencies of the program.

1. **Assessment System Overview:**

   Assessment is done through ICES affiliated Assessment Agencies. Assessors are trained & certified by ICES after Training of Assessor (ToA) program. Assessments are conducted to gauge and assess the trainee's skill and knowledge competency in the specified areas.

   The assessment will have both theory, practical and viva components as per ratio specified in each NOS for **Purchase Executive – Construction** job role.

   During the practical task, trainees are assessed on their workmanship, quality of finished product and time management. They will be graded for all their assessments based on the approved assessment strategy which is signed off by ICES. The Assessor submits an assessment plan to ICES prior to assessments.

   The assessment plan contains the following information:

   - What will be assessed, i.e. the competency based on each NOS based on theory, practical and viva questions
   - How assessment will occur i.e. methods of assessment
   - When the assessment will occur
   - Duration of assessment
   - Where the assessment will take place i.e. context of the assessment (workplace/simulation)
   - The criteria for decision making i.e. those aspects that will guide judgments
   - Where appropriate, any supplementary criteria are used to make a judgment on the level of performance.

   ICES will be monitoring thoroughly the complete Assessment process.

2. **Testing Environment:**

   - Training partner shares the batch start date and end date, number of trainees and the job role.
   - Assessment will be fixed for a day after the end date of training. It could be next day or later. Assessment will be conducted at the training venue/test center only.
   - The knowledge/theory assessments are conducted with proper seating arrangements with enough space between the candidates to prevent mal practicing.
   - Question set for Theory and Practical will be distributed to each candidate by the Assessor.
     - Theory testing will include MCQ type questions, pictorial questions etc. which will test the trainee on his theoretical knowledge of the subject.
     - Practical assessments will be conducted in the approved test centers. The training provider will ensure adequate tools and materials are available to conduct the practical test.
     - Viva Testing will be conducted during or post to the practical assessment by the assessor concerned. This Viva Assessment is applicable to understand the outcomes from OJT attended by the concerned candidate.
   - One (1) Assessor is eligible to conduct assessments of a batch of maximum 30 candidates.
   - The assessment must comprise of two components, namely:
     - Knowledge assessment (Theory and Viva assessment)
     - Skill assessment (Practical / Hands-on Skill assessment)

3. **Mode of assessment**
   - Demonstration/Practical Performance /Skill Assessment
   - Synoptic multiple-choice question test for Theory Assessment
   - Viva for Knowledge Assessment (Applicable to note the outcomes from OJT only)
4. **Performance/skill assessment:**
   - The performance/skill assessment will be conducted through demonstration/practical
   - For the practical test trainees are assessed through a given task, which they have to complete correctly for them to be marked as passed.
   - The assessment is conducted in a simulated working environment. Due to this fact, the assessors must note that the naturally occurring evidence of competence is unavailable or infrequent. Simulation must be undertaken in a Realistic Working Environment which provides an environment that replicates the key characteristics of the workplace in which the skill to be assessed is normally employed.
5. **Knowledge Assessment:**
   - The knowledge assessments are conducted through Theory (written) Test and Viva Test
   - Synoptic test is used for this. It is an MCQ (Multiple Choice Question) test which is prepared externally and externally marked, meaning by agency having no link with training partners.
   - The Viva test will be conducted by the assessor in the oral mode considering the communication and domain understanding of skills of trainees.
   - The assessment strategy, weightage and duration of assessment for **Purchase Executive – Construction** is summarized below

Assessment Type	Formative or Summative	Strategies	Weightage	Duration (hours)
Knowledge	Summative	MCQ	30	1 hour
Knowledge	Summative	Viva	20	1 hour
Skill	Summative	Structured practical Task	50	6 hours

6. **Assessment Quality Assurance levels/Framework**
   - ICES has developed assessment criteria framework for each Qualification pack as per National Occupational Standards. The criteria framework includes weightages/marks for each criterion under knowledge and skill. The criteria ensure quality assurance as they ensure valid, consistent and fair assessments at all locations. Issued to the affiliated Assessment body. The Assessment Body develops questions based on ICES's approved assessment criteria.
   - The training partner will intimate the time of arrival of the assessor and time of leaving the venue. Random spot checks/audit may be conducted by ICES to monitor assessment.
   - Continuous Monitoring through virtual and In-person mode are conducted to ensure the assessment is conducted as per stipulated process
   - Process and Technical audit of assessment batches by quality team are conducted to avoid errors in assessment process
   - A well -defined comprehensive framework of NON-COMPLIANCE MATRIX is defined and implemented to identify the non-compliance made by assessor and AA and punitive actions are taken correspondingly.
   - The capacity building sessions are conducted regularly for assessors and assessment agencies to update them about best practices in assessment

7. **Types of evidence or evidence-gathering protocol:**
   - Evidence in the form of answer sheets in case of knowledge assessments (Theory only) is collected.
   - For Practical and Viva assessments videos and photographs are prepared as evidence. These are submitted by the assessor to the assessment agency. ICES does random checks of the same with the participant/ trainee's ID and ascertains authenticity and validity of assessments.
   - Post Assessment, the evidence are uploaded by Assessor to assessment agency and further assessment agency to ICES as per stipulated TAT
   - Evidence are broadly photographic and video graphics in nature (Geo-Tagged)
   - Results along with evidence to be submitted to ICES by the concerning Assessment Agency in the prescribed format and on Digital Format and Physical Format (As required)
   - Results to be uploaded on SIDH and other relevant portals for collective data management.
8. **Method of verification or validation:**
   - The process and technical audit of assessment batches are done by Awarding Body
   - Attendance of each candidate is verified and it is ensured that only those candidates are assessed by assessors who are meeting the stipulated minimum percentage of attendance
   - The result of each candidate is verified; it is verified that that result on SIP is matched with respect to summary sheet submitted by AAs
   - Under detailed technical audit for sample batches, the knowledge and skill assessment results for each candidate are checked in technical aspect.
   - All the evidence of batches are preserved on server of Awarding Body digital platform
9. **On the Job:**
   - On job training (OJT), candidates undergo training and leaning at actual workplace for a fixed period of time and a certain weightage of assessment is allocated out of total skill weightage of Qualification Pack for undergoing OJT as stipulated by ICES. This OJT score and assessors' end point score are combined to arrive at final Marking/grading of trainees' skill test. The OJT score is determined by Supervisor / Engineer / other authorized head of departments of relevant industry under which candidates undergo on job training.
   - The Assessment is subject to take place only after submission of OJT data (in case of STT only) approved by concerned industry and training provider.
   - The Hard copy of the OJT report (on trainings, outcomes, exposures learnt and feedback certified by Supervisor / Engineer / other authorized head of departments of relevant industry) will be submitted to the Assessor by the concerned candidate on the Assessment date only, failing which the candidate may not be allowed for attending the Assessment.
   - As OJT is mandatory for this QP, the TP should ensure the correct submission of all relevant reports pertaining to OJT of each trained candidate. The Assessment agency is responsible for collecting all the relevant information and submit the same to ICES in future (if required).

References

Glossary

Terms	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do **upon the completion of the training**.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do **upon the completion of a module.** A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

Terms	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
PC	Performance Criteria
DWSSC	Domestic Workers Sector Skill Council
MC	Model Curriculum
OJT	On Job Training
KLO	Key Learning Outcomes
SME	Subject Matter Expert
ToA	Training of Assessors
ToT	Training of Trainers
SIP	Skill India Portal
TP	Training Partner
SDMS	Skill Development and Management System
VTP	Vocational Training Provider
TC	Training Centre
OMR	Optical Mark Recognition
PPE	Personal Protective Equipment
SSC	Sector Skill Council
PwD	Persons with Disabilities
ADL	Activities of Daily Living
CPR	Cardio Pulmonary Resuscitation
UV	Ultraviolet
ABC	Airways, Breathing and Circulation