





# **Model Curriculum**

**QP Name: Marine Cargo Junior Inspector** 

(Electives – Liquid Bulk Cargo/ Dry Bulk Cargo)

(Options – EXIM Documentation)

QP Code: LSC/Q6601

**QP Version: 1.0** 

**NSQF Level: 4** 

**Model Curriculum Version: 1.0** 

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# **Training Parameters**

Sector	Logistics
Sub-Sector	Port Terminals, ICD and CFS
Occupation	Inspection, Surveying
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3315
Minimum Educational Qualification and Experience	<ul> <li>12th grade Pass</li> <li>OR</li> <li>Completed 2nd year of the 3-year diploma after 10th</li> <li>OR</li> <li>10th grade pass with 3 Years of experience in port operations</li> <li>OR</li> <li>Previous relevant Qualification of NSQF Level (3) with 3 Years</li> <li>of experience in port operations</li> </ul>
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	30/05/2024
Next Review Date	30/05/2027
NSQC Approval Date	30/05/2024
QP Version	1.0
Model Curriculum Creation Date	06/05/2024
Model Curriculum Valid Up to Date	30/05/2027
Model Curriculum Version	1.0
Minimum Duration of the Course	450 hours
Maximum Duration of the Course	570 hours





# **Program Overview**

This section summarizes the end objectives of the program along with its duration.

## **Training Outcomes**

At the end of the program, the learner will be able to:

- Inspect cargo and vessel documentation for compliance to data completeness and regulatory compliance
- Perform cargo valuation by undertaking draught measurements and computations
- Certify vessel and cargo after loading/unloading
- Inspect compliance to dangerous goods handling methods and guide teams.
- Comply to workplace integrity, ethical and regulatory practices.
- Manage workplace for safe and healthy work environment by following and ensuring compliance to regulatory and safety norms
- Perform the survey and certification of containerized cargo for imports/exports, loading/unloading onto the vessel, and ones carrying hazardous materials.
- Supervise and provide certification of bulk liquid cargo at the time of loading /unloading and other related process measurements.
- Perform survey of dry bulk cargo for imports/exports and provide certification
- Inspect EXIM documentation compliance to regulatory requirements and completeness

## **Compulsory Modules**

The table lists the modules, their duration and mode of delivery.

NOS and Module Details	Theory Duratio n	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	20	10			30
Module 1: Introduction to Marine Cargo Junior Inspector	20	10			30
LSC/N3801 - Verify cargo and vessel information V2.0 NSQF Level 4	15	35	10		60
Module 2: Inspection of cargo and vessel information	15	35	10		60
LSC/N3802 - Perform cargo valuation and certify V2.0 NSQF Level 4	30	50	10		90
Module 3: Cargo valuation and it's certification	30	50	10		90





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LSC/N3803 – Survey containerized cargo and certify V2.0 NSQF Level 4	30	50	10		90
Module 4: Containerized cargo survey and it's certification	30	50	10		90
LSC/N9911 - Follow health, safety, security procedures and maintain integrity, ethics at workplace V1.0 NSQF Level 4	20	40			60
Module 5: Follow health, safety, security procedures and maintain integrity, ethics at workplace	20	40			60
Employability Skills DGT/VSQ/N0102	30	30			60
Total Duration	145	215	30		390

### **Elective Modules**

The table lists the option modules, their duration and mode of delivery.

## Elective 1: Liquid Bulk Cargo

NOS and Module Details	Theory Duratio n	Practical Duratio n	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
LSC/N3804 – Survey liquid bulk cargo and certify V2.0 NSQF Level 4	30	30			60
Module 7: Liquid bulk cargo survey and it's certification	30	30			60
Total Duration	30	30			60





## Elective 2: Dry Bulk Cargo

NOS and Module Details	Theory Duratio n	Practical Duratio n	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
LSC/N3805 – Survey dry bulk cargo and certify V2.0 NSQF Level 4	30	30			60
Module 8: Dry bulk cargo survey and it's certification	30	30			60
Total Duration	30	30			60

## **Option Modules**

The table lists the option modules, their duration and mode of delivery.

## **Option 1: EXIM Documentation**

NOS and Module Details	Theory Duratio n	Practical Duratio n	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
LSC/N2307 – Verify EXIM Documentation V2.0 NSQF Level 4	30	30			60
Module 9: Inspection of EXIM Documentation	30	30			60
Total Duration	30	30			60





# **Module Details**

## Module 1: Introduction to Marine Cargo Junior Inspector Mapped to Bridge Module

#### **Terminal Outcomes:**

- Describe the basic structure and function of supply chain
- Detail the various functions of a Marine Cargo Junior Inspector

Duration: 20:00	Duration: 10:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul> <li>Classify the components of supply chain and logistics sector</li> <li>Detail the various sub-sectors and the opportunities in them</li> <li>Detail the activities in Ports, CFS, ICD</li> <li>Explain the job roles in Ports, CFS, ICD</li> <li>Detail your job role as Marine Cargo Junior Inspector and its interface with other job roles</li> </ul>	<ul> <li>Identify various activities in Ports, CFS, ICD</li> <li>Identify job roles in Ports, CFS, ICD</li> <li>Identify the various MHEs and equipment used in Ports, CFS, ICD</li> </ul>
Classroom Aids	
Charts, Models, Video presentation, Flip Chart, W	/hiteboard/Smart Board, Marker, Board eraser
Tools, Equipment and Other Requirements	
Computers with MS office, Scanners, system tool	s. printers





# Module 2: Inspection of cargo and vessel information Mapped to LSC/N3801, v2.0

### **Terminal Outcomes:**

• Detail the steps involved in inspection of vessel and cargo documentation

Duration: 15:00	Duration: 35:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul> <li>Detail vessel and cargo documentation</li> <li>Inspect vessel documentation for correctness and compliance to regulations</li> <li>Review export documentation for correctness and compliance to regulations</li> <li>Detail import documentation for correctness</li> </ul>	<ul> <li>Perform vessel and cargo documentation</li> <li>Examine the vessel document for correctness</li> <li>Check the export documentation for correctness</li> <li>Check import documentation for correctness and compliance to regulations</li> <li>Identify deviation between physical goods with documentation</li> </ul>
Classroom Aids	1

Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser

### **Tools, Equipment and Other Requirements**

Computers with MS Office, ERP, SOP, import, export and vessel documentation





# Module 3: Cargo valuation and it's certification Mapped to LSC/N3802, V2.0

### **Terminal Outcomes:**

• Detail the steps to be followed for effective valuation of cargo

Duration: 30:00	Duration: 50:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul> <li>Appraise vessel for adequacy of infrastructure to carry the scheduled cargo</li> <li>Describe the loading/unloading equipment and its component used for operations</li> <li>Detail draught measurement carried out during loading unloading</li> <li>Compute weight/volume of goods transferred using draught measurements, volumetric, density and weight measurements</li> <li>Asses the weight/volume of loaded and unloaded goods</li> <li>Explain the inspection procedure for loaded and unloaded goods</li> <li>Use IT tools for documentation</li> </ul>	<ul> <li>Assess vessel for infrastructure adequacy</li> <li>Perform loading unloading using the desired equipment</li> <li>Perform draught measurements before, during and after loading</li> <li>Examine the weight of goods using weight measurement, draught measurement etc.</li> <li>Record the weight/volume loaded / unloaded from the vessel</li> <li>Inspect loaded/unloaded cargo for safety and security</li> <li>Document cargo movement, damages, plan vs performance, accidents etc.</li> <li>Perform documentation using IT tools</li> </ul>
Classroom Aids	

Tools, Equipment and Other Requirements

Computers with MS Office, ERP, loading/unloading equipment, Measuring equipment





# Module 4: Containerized cargo survey and it's certification Mapped to LSC/N3803, V2.0

### **Terminal Outcomes:**

• Detail the steps to be followed for survey of containerized cargo

Duration: 30:00	Duration: 50:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul> <li>Describe different types of cargo lashing</li> <li>Detail different types of packaging of goods</li> <li>Detail stuffing, loading procedure performed inside the container</li> <li>Explain hazardous goods segregation and storage methods in container</li> <li>Explain hazardous goods documentation such as class labels, manifests, safety data sheets (SDSs), and material safety data sheets (MSDSs)</li> <li>Document goods loaded/unloaded, damages, hazardous nature etc</li> </ul>	<ul> <li>Identify different types of packaging</li> <li>Inspect correct stuffing, lashing and loading in container</li> <li>Segregate and store hazardous goods as per SOP</li> <li>Inspect compliance to loading regulations and labelling regulations</li> <li>Take photographs of operations such as inspecting, loading/unloading, and stuffing/destuffing</li> </ul>
Classroom Aids	

#### **Tools, Equipment and Other Requirements**

Loading/unloading equipment, MSDS/SDS data sheets, labels, IMDG guidelines, Computers with MS Office, ERP





# Module 5: Follow health, safety, security procedures and maintain integrity, ethics at workplace. *Mapped to LSC/N9911, v1.0*

#### **Terminal Outcomes:**

• Detail the steps involved in the implementation of health & safety measures

<ul> <li>Theory – Key Learning Outcomes</li> <li>Detail the safety regulations and procedures w.r.t fire hazards, biohazards, etc.</li> <li>Explain various PPE utilized in logistics and their uses.</li> <li>Describe data safety regulations and clear worktable policy.</li> <li>Explain the importance of taking care of personal health and hygiene.</li> <li>Detail the standard procedures to be followed during emergency situations.</li> <li>Explain 5s at workplace and code of ethics.</li> </ul>	Factical – Key Learning Outcomes Follow health, safety and security measures during all activities. Wear all safety equipment including protective gear, helmets etc., in relevant bay areas. Recognize unsafe conditions and safety practices at the workplace and report it to
<ul> <li>procedures w.r.t fire hazards, biohazards, etc.</li> <li>Explain various PPE utilized in logistics and their uses.</li> <li>Describe data safety regulations and clear worktable policy.</li> <li>Explain the importance of taking care of personal health and hygiene.</li> <li>Detail the standard procedures to be followed during emergency situations.</li> </ul>	during all activities. Wear all safety equipment including protective gear, helmets etc., in relevant bay areas. Recognize unsafe conditions and safety
•	concerned authorities. Comply with data safety regulations of the organization and follow clear worktable policy. Maintain personal health and hygiene. Practice basic first aid methods. Follow procedures to handle emergency situations. Protect data and information related to business or commercial decisions. Prevent company and customer information leakage. Refrain from indulging in corrupt practices and consult senior management when in an ethical dilemma. Follow organization procedures with respect to documentation.
<b>Classroom Aids</b> Charts, Models, Video presentation, Flip Chart, White	

## Tools, Equipment and Other Requirements

Computers with MS Office, PPE, LLMS (learning version), Safety and security equipment





## Module 6: Employability Skills Mapped to DGT/VSQ/N0102, v1.0

### **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: 30:00 Duration: 30:00				
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes			
• Discuss the Employability Skills required for	Practice different environmentally			
jobs in various industries	sustainable practices.			
• List different learning and employability	• Exhibit 21st century skills like Self-			
related GOI and private portals and their	Awareness, Behaviour Skills, time			
usage	management, critical and adaptive thinking,			
• Explain the constitutional values, including	problem-solving, creative thinking, social			
civic rights and duties, citizenship,	and cultural awareness, emotional			
responsibility towards society and personal	awareness, learning to learn etc. in			
values and ethics such as honesty, integrity,	personal or professional life.			
caring and respecting others that are	• Demonstrate to use basic English sentences			
required to become a responsible citizen	for everyday conversation in different			
• Discuss importance of relevant 21st century	contexts, in person and over the telephone			
skills.	Read and interpret text written in basic			
• Describe the benefits of continuous	English			
learning.	• Write a short note/paragraph / letter/e -			
• Explain the importance of active listening	mail using basic English			
for effective communication	Create a career development plan with			
• Discuss the significance of working	well-defined short- and long-term goals			
collaboratively with others in a team	<ul> <li>Communicate effectively using verbal and</li> </ul>			
• Discuss the significance of escalating sexual	nonverbal communication etiquette.			
harassment issues as per POSH act.	• Demonstrate how to behave,			
• List the common components of salary and	communicate, and conduct oneself			
compute income, expenditure, taxes,	appropriately with all genders and PwD			
investments etc.	Outline the importance of selecting the			
<ul> <li>Discuss the legal rights, laws, and aids</li> </ul>	right financial institution, product, and			
• Describe the role of digital technology in	service			
today's life	• Demonstrate how to carry out offline and			
<ul> <li>Discuss the significance of displaying</li> </ul>	online financial transactions, safely and			
responsible online behaviour while	securely			





browsing, using various social media platforms, e-mails, etc., safely and securely

- Explain the types of entrepreneurship and enterprises
- Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
- Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
- Detail the significance of analyzing different types and needs of customers
- Explain the significance of identifying customer needs and responding to them in a professional manner.
- Discuss the significance of maintaining hygiene and dressing appropriately
- Explain the significance of maintaining hygiene and confidence during an interview
- List the steps for searching and registering for apprenticeship opportunities

- Operate digital devices and use the associated applications and features, safely and securely
- Create sample word documents, excel sheets and presentations using basic features
- Utilize virtual collaboration tools to work effectively
- Devise a sample business plan, for the selected business opportunity
- Create a professional Curriculum Vitae (CV)
- Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively
- Perform a mock interview

## **Classroom Aids**

Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Board eraser, UPS, LCD Projector, Computer Tables & chairs

### **Tools, Equipment and Other Requirements**

Computer (PC) with latest configurations – and Internet connection with standard operating system and standard word processor and worksheet software (Licensed) (all software should either be latest version or one/two version below), Scanner cum Printer





# Module 7: Liquid bulk cargo survey and it's certification Mapped to LSC/N3804, v2.0

### **Terminal Outcomes:**

• Detail the steps to be followed for survey of liquid bulk cargo

Duration: 30:00	Duration: 30:00		
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes		
<ul> <li>Describe different types of cargo hold coatings/paintings and infrastructural requirements for transporting liquid bulk cargo</li> <li>Detail the process steps involved in liquid bulk loading/unloading from vessel</li> <li>Explain the inspection procedure of pipes, valves etc.</li> <li>Determine the density flow using measuring equipment</li> <li>Describe the liquid bulk securing process using vessel equipment</li> </ul>	<ul> <li>Inspect pipes, valves, hatches and other safety equipment for adequacy to norms</li> <li>Record density, flow and compute volume using various measuring equipment</li> <li>Document volume loaded/unloaded, spillages during the process</li> </ul>		
Classroom Aids			

## Tools, Equipment and Other Requirements

Loading/unloading equipment, safety and security equipment, measuring equipment, Computers with MS Office, ERP





# Module 8: Dry bulk cargo survey it's certification Mapped to LSC/N3805, V2.0

### **Terminal Outcomes:**

• Detail the steps to be followed for survey of dry bulk cargo

Duration: 30:00	Duration: 30:00		
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes		
<ul> <li>Describe infrastructure and safety requirements of vessel for carrying different types of dry bulk cargo</li> <li>Evaluate the moisture content of different types of cargo</li> <li>Explain hazardous goods segregation and storage methods</li> <li>Evaluate filling of cargo hold</li> <li>Describe dry bulk cargo securing process using vessel equipment</li> </ul>	<ul> <li>Asses the infrastructure and safety of different vessel</li> <li>Inspect if material handling, storage and safety equipment are as per norms</li> <li>Test the moisture content of different types of dry bulk cargo</li> <li>Store and segregate hazardous material as per SOP</li> <li>Inspect uniform filling of cargo hold</li> <li>Perform dry bulk cargo securing using vessel equipment</li> </ul>		
Classroom Aids			
Charts, Models, Video presentation, Flip Chart, N	Nhiteboard/Smart Board, Marker, Board eraser		

### **Tools, Equipment and Other Requirements**

Loading/unloading equipment, safety and security equipment, measuring equipment, Computers with MS Office, ERP





# Module 9: Inspection of EXIM Documentation Mapped to LSC/N2307, V2.0

### **Terminal Outcomes:**

• Detail the steps to be followed for inspection of EXIM documentation

<ul> <li>Ferform documentation for export import as per SOP</li> </ul>
<ul> <li>Check EXIM documentation for compliance to regulation</li> <li>Check exporter and importer organizational documentation for compliance to regulation</li> <li>Use Indian Customs Electronic Commerce and other gateways for documentation process</li> <li>Employ IMDG and HAZCHEM for hazardous goods transportation</li> <li>Document queries, correspondences, grievances and regulatory requirements</li> </ul>

#### Tools, Equipment and Other Requirements

IMDG guidelines, HAZCHEM guidelines, EXIM documentation, Computers with MS Office, ERP, SOP





# Annexure

# **Trainer Requirements**

Trainer Prerequisites								
Minimum Educational	Specialization	n Relevant Industry Experience				Traini	ng Experience	Remarks
Qualification		Years	Specialization	Years	Specialization			
Any degree	Port terminals/ CFS/ICD	2	Port terminals/ CFS/ICD					

Trainer Certification				
Domain Certification	Platform Certification			
Certified for Job Role: "Marine Cargo Junior Inspector " mapped to QP: "LSC/Q6601, v1.0". 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, V2.0" with minimum score of 80%			





# **Assessor Requirements**

Assessor Prerequisites						
Minimum Specialization Educational	Relevant Industry Experience		Training/Assessment Experience		Remarks	
Qualificatio n		Years	Specialization	Years	Specialization	
Any degree	Port terminals/ CFS/ICD	2	Port terminals/ CFS/ICD			

Assessor Certification				
Domain Certification	Platform Certification			
Certified for Job Role: "Marine Cargo Junior Inspector" mapped to QP: "LSC/Q6601, v1.0". 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, V2.0" with minimum score of 80%			





## **Assessment Strategy**

The emphasis is on 'learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria. Accordingly, assessment criteria for each job role is set and made available in the qualification pack.

The assessment papers for both theory and practical would be developed by Subject Matter Experts (SME) hired by Logistics Sector Skill Council or with the LSC accredited Assessment Agency as per the assessment criteria mentioned in the Qualification Pack. The assessments papers would also be checked for the various outcome-based parameters such as quality, time taken, precision, tools & equipment requirement etc.

Each NOS in the Qualification Pack (QP) is assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Element/Performance Criteria in the NOS is assigned marks on relative importance, criticality of function and training infrastructure.

The following tools would be used for final assessment:

**1. Practical Assessment:** This comprises of a creation of mock environment in the skill lab which is equipped with all equipment required for the qualification pack.

Candidate's soft skills, communication, aptitude, safety consciousness, quality consciousness etc. is ascertained by observation and marked in observation checklist. The outcome is measured against the specified dimensions and standards to gauge the level of their skill achievements.

**2. Viva/Structured Interview:** This tool is used to assess the conceptual understanding and the behavioral aspects with regard to the job role and the specific task at hand. It also includes questions on safety, quality, environment, and equipment etc.

**3. On-Job Training:** OJT would be evaluated based on standard log book capturing departments worked on, key observations of learner, feedback and remarks of supervisor or mentor.

**4.** Written Test: Question paper consisting of 100 MCQs (Hard:40, Medium:30 and Easy: 30) with questions from each element of each NOS. The written assessment paper is comprised of following types of questions:

- i. True / False Statements
- ii. Multiple Choice Questions
- iii. Matching Type Questions.
- iv. Fill in the blanks
- v. Scenario based Questions
- vi. Identification Questions

### QA Regarding Assessors:

Assessors are selected as per the "eligibility criteria" laid down by LSC for assessing each job role. The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to LSC Assessment Framework, competency-based assessments, assessors guide etc. LSC conducts "Training of Assessors" program from time to time for each job role and sensitize assessors regarding assessment process and strategy which is outlined on following mandatory parameters:





- 1) Guidance regarding NSQF
- 2) Qualification Pack Structure
- 3) Guidance for the assessor to conduct theory, practical and viva assessments
- 4) Guidance for trainees to be given by assessor before the start of the assessments.
- 5) Guidance on assessments process, practical brief with steps of operations practical observation checklist and mark sheet
- 6) Viva guidance for uniformity and consistency across the batch.
- 7) Mock assessments
- 8) Sample question paper and practical demonstration





## References

# Glossary

Term	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).
(M) TLO	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 <b>upon the completion of the training</b> .
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of a module.</b> A set of terminal outcomes help to achieve the training outcome.





# Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards