



Model Curriculum

QP Name: Modeller

QP Code: HCS/Q0201

QP Version: 2.0

NSQF Level: 4

Model Curriculum Version: 1.0

Handicrafts and Carpet Sector Skill Council || Handicrafts and Carpet Sector Skill Council, 3rd Floor,
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Training Parameters

Sector	Handicrafts and Carpet
Sub-Sector	Ceramics
Occupation	Product R&D - Ceramics
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8181.1100
Minimum Educational Qualification and Experience	8th Class with 3 years of relevant experience OR 10th Class with 1 year of relevant experience OR Certificate NSQF Level 3 (Ceramics Preparation Artisan) with 2 years of relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	
Next Review Date	
NSQC Approval Date	
QP Version	2.0
Model Curriculum Creation Date	
Model Curriculum Valid Up to Date	
Model Curriculum Version	1.0
Minimum Duration of the Course	
Maximum Duration of the Course	

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 should have acquired the listed knowledge and skills.

- Introduction to Handicrafts (Ceramics) Industry in India
- Determine market and customer cues
- Make master models for production line
- Coordinate with colleagues and work as a team
- Maintain Safe and Healthy Work Environment
- Maintain Personal Hygiene
- Basic Business Management

Compulsory Modules

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

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	10:00	00:00	NA	NA	10:00
Module 1 Introduction to Handicrafts (Ceramics) Industry in India	10:00	00:00	NA	NA	10:00
HCS/N0201: Determine market and customer cues NOS Version No. 2.0 NSQF Level 4	02:00	100:00	NA	60:00	102:00
Module 2: Determine market and customer cues	02:00	100:00	NA	60:00	102:00
HCS/N0202: Make master models for production line NOS Version No. 2.0 NSQF Level 4	02:00	80:00	NA	20:00	82:00
Module 3: Make master models for production line	02:00	80:00	NA	20:00	82:00
HCS/N9901: Coordinate with colleagues and work as a team NOS Version No. 6.0 NSQF Level 4	02:00	50:00	NA	00:00	52:00
Module 4: Coordinate with colleagues and work as a team	02:00	50:00	NA	00:00	52:00
HCS/N9902: Maintain Safe and Healthy Work Environment NOS Version No. 6.0 NSQF Level 4	05:00	40:00	NA	00:00	45:00
Module 5: Maintain Safe and Healthy Work Environment	05:00	40:00	NA	00:00	45:00
HCS/N9903: Maintain Personal Hygiene NOS Version No. 3.0 NSQF Level 4	05:00	40:00	NA	00:00	45:00

Module 6: Maintain Personal Hygiene	05:00	40:00	NA	00:00	45:00
HCS/N9904: Basic Business Management NOS Version No. 3.0 NSQF Level 4	04:00	50:00	NA	00:00	54:00
Module 7:Basic Business Management	04:00	50:00	NA	00:00	54:00
Bridge Module Employability & Entrepreneurship Skills	40:00	20:00	NA	00:00	60:00
Module 8 Employability & Entrepreneurship Skills	40:00	20:00	NA	00:00	60:00
Total Duration	70:00	380:00	NA	80:00	450

Module Details

Module Name 1: Introduction to Handicrafts (Ceramics) Industry in India

Mapped to Bridge Module

Terminal Outcomes:

- outline the Handicrafts (Ceramics) industry in India
- discuss the types of tools and equipment used in the Handicrafts (Ceramics) industry
- identify the different physical properties of Handicrafts (Ceramics)

Duration: <10:00>	Duration: <00:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none">• list different types of Handicrafts (Ceramics) manufactured in India.• recall the states that are the hub for Handicrafts (Ceramics) in India• discuss the importance of using tools and equipment based on physical and operational properties of Handicrafts (Ceramics)• explain the career opportunities available in the Handicrafts (Ceramics) sector	
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/SmartBoard, Marker, Duster	
Tools, Equipment, and Other Requirements	

Module Name 2: Determine market and customer cues

Mapped to HCS/N0201, V2.0

Terminal Outcomes:

- analyze market and customer cues
- interpret the cues as designs
- finish the mould

<i>Duration: 02:00</i>	<i>Duration: 100:00</i>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • discuss the importance of determining the various market trends and customer cues from merchandiser • explain the importance of analyzing market preference of product design to create the master model • discuss the benefits of examining preferences and design specifications from cues • discuss how to convert cues into designs as per the job specification • discuss the importance of checking current market designs and trends for making the master model • explain the benefits of interacting with cross-functional teams to brainstorm on the designs and their functionalities • discuss how to compute various standard parameters to imprint designs on the model • explain how to check if the designs are amenable to the product shape and dimension • ensure that there is no wastage of the materials • describe the benefits of analyzing that design meets market and customer requirement • explain personnel management, relevant legislation, standards, policies, and procedures followed in the company • discuss the key production lines of the company • discuss designing principles, shape awareness, basic geometry, and use of right shades • explain customer demand perception • describe the appropriate market and customer requirement analyzing techniques • discuss the risk and impact of not following defined work instructions • explain implications of delays in the process 	<ul style="list-style-type: none"> • demonstrate placement of raw material in prescribed quantities required for model making • demonstrate inspection of the design in three-dimensional space to check the job specifications • perform creation of sample designs as per the approved design specifications • demonstrate the process of transferring the sample designs to the moulders • demonstrate inspection of quality standard parameters to ensure that models for conformity with the product • demonstrate the preparation of sample template to store the various sample designs • show the locations where materials are typically stored
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/SmartBoard, Marker, Duster	
Tools, Equipment, and Other Requirements	
Raw material, etc.	

Module Name 3: Make master models for production line

Mapped to HCS/N0202, V2.0

Terminal Outcomes:

- prepare raw materials required for making the master model
- perform process of master model making
- check master model quality and productivity standards

<i>Duration: 02:00</i>	<i>Duration: 80:00</i>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • discuss how to identify raw materials like ball clay, mud clay, black clay, plaster of paris, etc. for making the master model. • stage by using appropriate tools like a blender, hammer, etc. • perform the sieving process of the blended mixture using a sieve of fine mesh to remove tiny stone pieces • explain the importance of letting dry sieved mixture for two days to make it of the right consistency • discuss the importance of providing correct stance and detailing to master model using sculpting tools like a chisel, sharp pen, etc. • explain how artisan prepares the model for making the mould • explain the benefits of using fine clay as a temporary base for building a mould • demonstrate the application of a layer of kerosene on the model to avoid sticking mould material • explain the importance of ensuring that removing extra materials sticking to the mould using a chisel once the mould is dried. • discuss the importance of carefully break open the mould using a chisel • discuss how to provide required finishing by using a chisel/fine pen • explain the importance of ensuring that no excess clay is chipped to master model • discuss the importance of maintaining records of inspection results/tests • explain the importance of ensuring that there is no wastage of materials • explain how to prepare a sample template to collect information during inspection based on master model • explain the importance of ensuring that there are no process delays • discuss how to achieve periodical targets set by the supervisor 	<ul style="list-style-type: none"> • perform standard organizational procedures to be followed to store different types of raw materials at designated locations • demonstrate the collection of required raw materials and tools like a chisel, fine pen, sieve in prescribed quantities • demonstrate preparation of collected clay by breaking down solid pieces of mud and blend it with water before the casting • perform arrangement of raw materials carefully for further usage in making an appropriate master model • perform the delivery process of the remaining raw material to the designated storage locations • perform the standard process for creating a master model to create mould for casting either by plaster of paris or clay • perform the process of placing a lump on the turning wheel • demonstrate the process of playing lump on the turning wheel • demonstrate the process of shaping clay on the turning wheel • perform the step to cut off the clay from the turning wheel using a string of thread and keep it for drying • demonstrate the process of giving basic shape to master model by hands • demonstrate the preparation of a slurry-like mixture of plaster of paris, cement, and water for making mould. • perform pouring of the mixture above the clay model • perform the standard process of removing clay from mould and clean it

- explain how to identify different types of parameters required to ensure an appropriate amount of inventory is being stored at the time of production

- demonstrate the standard process of dusting chalk powder inside mould to avoid sticking clay cavities
- demonstrate the creation of products using the mould prepared
- demonstrate how to fill in the mould with thick clay
- perform the step of filling two halves of the mould, press it firmly to give shape and join it together to get one complete product
- demonstrate removal of the product from the mould
- demonstrate inspection of master model based on the quality standard parameters to ensure the master model is created as per standard procedures

Classroom Aids:

Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster

Tools, Equipment and Other Requirements

ball clay, mud clay, black clay, plaster of paris, blender, hammer, chisel, sharp pen, kerosene, etc.

Module Name 4: Coordinate with colleagues and work as a team

Mapped to HCS/N9901, V6.0

Terminal Outcomes:

- Interact with supervisor
- Coordinating with colleagues
- Carry out reporting and documentation

<i>Duration: 02:00</i>	<i>Duration: 50:00</i>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • discuss the benefits of compiling with health, safety gender, and pwd (people with disability) related instructions applicable to the workplace. • discuss the importance of understanding the work output requirements, targets, performance indicators, and incentives. • explain the benefits of delivering quality work on time and report any anticipated reasons for delays and handover completed work to the supervisor • describe how to compile a report on any grievances, production defects, and potential hazards • discuss the importance of communicating maintenance and repair schedule proactively to the supervisor • explain how to interact and clarify doubts on design, usage of materials & tools, quality & standards compliance, etc. • describe how to compile a report in time for shortage or need of raw materials • describe how to communicate with colleagues from within and other departments, clearly and effectively on all aspects to carry out the work among the team • discuss the importance of maintenance etiquette, use polite language, demonstrate responsible and disciplined behavior towards colleagues. • discuss the importance of putting the team over individual goals and multi-task or share work where necessary supporting the colleagues. • explain the benefits of documenting all the details accurately relating to one's role as required. • explain the benefits of knowing the importance of gender equality being followed in the organization and policies for reporting any harassment or inappropriate behavior 	<ul style="list-style-type: none"> • demonstrate mock drills/ evacuation procedures; group discussions, training sensitization programs for gender, and pwd awareness organized at the workplace. • role-play of receiving job orders and instructions from reporting supervisor and receive feedback on work standards. • demonstrate the procedures for working with colleagues, his/her role, and responsibilities about this. • show tools and equipment handling procedures and common potential hazards in the workplace and the procedures to deal with them • demonstrate the expressing and addressing grievances appropriately, deal with difficult work relationships, and manage internal conflicts effectively.

- explain the benefits of knowing how to accommodate employees with disabilities etiquette to adhere to and proper language and terminology
- explain the benefits of knowing how to communicate, offer help, respecting space, parking, etc. for people with disabilities or special needs
- explain the benefits of knowing promoting a safe, accessible, and healthy workplace for disabled employees
- discuss company's policies on preferred language of communication, incentives, quality standards, personnel management, reporting, and escalation matrix policy.
- discuss the company's standard operating procedure (sop) and the risk and impact of not following them.
- explain the organizational hierarchy and the line of reporting structure and work target and review mechanism
- discuss the procedures to report employment-related issues and to deal with conflicts
- discuss the importance of the individuals' role in the organizational workflow and details of the individual responsibilities
- describe how to document the job activity as required like the check sheets, history sheets, etc

Classroom Aids:

Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster

Tools, Equipment and Other Requirements

Basic Stationary

Module Name 5: Maintain Safe and Healthy Work Environment

Mapped to HCS/N9902, V6.0

Terminal Outcomes:

- Maintain workplace safety and security standards
- Maintain effective waste management

<i>Duration: 05:00</i>	<i>Duration: 40:00</i>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • explain the importance of carrying out work functions by organizational standards, greening solutions, procedures, policies, legislation, and regulations. • discuss the benefits of application and follow these policies and procedures within your work practices and inculcate sustainable consumption practices • discuss how one can actively get involved in improving the performance of the organization in line with their role and responsibilities and support adaptation to more environmentally friendly processes • describe how to comply with safety procedures while at work to prevent accidents • explain why it is necessary to wear appropriate personal protective gear such as gloves, protective goggles, masks, etc. while working • discuss the importance of ensuring zero accidents at the workplace • discuss the importance of adhering to safety standards and discuss the importance of ensuring no material damage • discussion on making conscious and sustainable decisions for achieving an effective and green workplace. • discuss company's policies on work safety and occupational hazard management • describe why it is important to know the company's hr policies and reporting structure • explain company emergency evacuation procedure • discuss standard operating procedure (sop) of processes • explain precautionary activities to be followed in the processes 	<ul style="list-style-type: none"> • demonstrate how to take adequate safety measures while handling materials, chemicals, and tools • demonstrate appropriate and recommended clothing as per the work environment • perform recommended material handling procedures to control material and personal damage. • perform all procedures as per the company's work instructions for controlling operational risk to be competent. • perform the duties in a manner that minimizes environmental damage • show disposal of waste safely and correctly in a designated area as per company's sop • role-play of reporting any accidents, incidents, or problems without delay to the supervisor and take necessary immediate action to reduce the further danger • demonstrate accidental risks to the worker • demonstrate how to maintain the work area safe and secure • demonstrate how to perform the duties in a way to minimize accidental risks • demonstrate how to handle chemicals in a safe manner • demonstrate how to operate tools and electrical equipment • perform emergency procedures to be followed in case of a mishap such as fire accidents etc. • perform purpose and usage of protective gears such as gloves, protective goggles, masks, etc. while working • perform safe and correct material handling procedure

Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Basic Stationery	

Module Name 6: Maintain Personal Hygiene

Mapped to HCS/N9903, V3.0

Terminal Outcomes:

- Follow practices for Personal Hygiene at the workplace

<i>Duration: 05:00</i>	<i>Duration: 40:00</i>
<p>Theory – Key Learning Outcomes</p> <ul style="list-style-type: none"> • explain the importance of covering the mouth and nose with a dust mask while working and keep on changing when it gets blocked with dust • explain wearing safety shoes while visiting the production unit can avoid any damage. • explain the benefits of wearing personal protective equipment while visiting the different departments during production. or example mask in the washing section, glasses and masks in an assembly line, and gloves in the printing section, etc. • explain why one should wash /sanitize hands after a factory unit before touching any document, laptop, cell phone, etc. • discuss benefits of undergoing preventive health checkups at regular intervals • discuss importance of taking prompt treatment from the doctor in case of illness • discuss the importance of ensuring no productivity loss or absenteeism from work due to illness. • discuss the importance of ensuring no long-term ill effect on personal health. • explain company's policies on personal health and occupational hazard management • discuss company's hr policies. • discuss company's reporting structure. • health risks to the worker at the workplace. • describe how to perform the duties in a way to minimize pollution at the workplace. • discuss what personal protective equipment should be worn and how it is cared for. • discuss the emergency procedures to be followed in case of a mishap such as fire accidents etc. 	<p>Practical – Key Learning Outcomes</p> <ul style="list-style-type: none"> • role-play of following sops for dealing with blisters; scratches; accidental fires or any other type of emergencies at work • demonstrate the company's emergency evacuation procedure. • perform healthy work practices. • discuss safe disposal methods for waste. • demonstrate how to provide first-aid treatment at the workplace.
<p>Classroom Aids:</p> <p>Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster</p>	
<p>Tools, Equipment and Other Requirements</p> <p>Basic Stationery</p>	

Module Name 7: Basic Business Management

Mapped to HCS/N9904, V3.0

Terminal Outcomes:

- Carry out the activities of E-commerce
- Follow export-related practices
- Maintain product packaging SOPs

<i>Duration: 04:00</i>	<i>Duration: 50:00</i>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • discuss the importance of training the employees of his/her unit with the appropriate skills required to make market-relevant and quality products. • discuss the importance of motivating the employees. • explain how to compile a report based on old production reports. • discuss how to address the issues faced in previous productions and try to resolve them. • describe the procedure of gathering and analyzing the cues from the market. • discuss the benefits of ascertaining customer preference. • discuss the development of product range lines based on current market preference. • discuss the development of product range lines that are unique and able to price high. • describe the process of pricing the products according to market trends. • explain the identification of the competent marketing strategy for the product range to be competent, the user/individual on the job. • discuss ascertaining the quantity and right pricing to procure the materials. • explain the identification of the right locations/agents from where the raw materials can be procured. • discuss the importance of ensuring quality materials are procured. • discuss the importance of ensuring the procured materials are stored in appropriate conditions. • explain the procedure of compiling record of price quotations, pos, and bills of procurement for future reference. • discuss how to maintain a healthy and professional relationship with the vendor • discuss the competitive market falls in order with the company policies of best price, quality, and delivery parameters. • discuss the importance of analyzing the prevalent price for product lines. 	<ul style="list-style-type: none"> • role-play of interactive meetings of managers of sales and production teams and categorize the issues and feedbacks of both the teams • demonstrate the listing of the raw material and prepare a b.o.m according to the product lines. • role-play of negotiations to get the best price. • demonstrate the process of compiling the various records of all aspects of the business. • demonstrate product and craft knowledge including material and tools requirements. • demonstrate basic record-keeping techniques

- explain how to decide on the most effective means to access the market.
- explain how to plan for cost-effective transportation to the market.
- discuss the benefits of the positioning of the product according to market requirements.
- explain the way of identifying and addressing the expectations of customers
- discuss the ways to analyze and ascertain the cost of production.
- explain the benefits of maintaining the book of accounts related to the business
- explain the benefits of maintaining the export documents like a letter of credit, custom clearance.
- discuss and identify cost-effective means of running the business.
- discuss and identify various aspects of business that require recording.
- explain how to design formats for recording.
- explain the importance of maintaining these records with periodic updations.
- explain the importance of maintaining necessary documents as per local government and regulatory requirements.
- discuss how to reframe the procurement strategy according to local scenarios like weather conditions, transport strikes, affected prices, etc.
- discuss the importance of understanding basics accounting so that he/she can monitor the transactions between company and vendor.
- discuss the importance of knowing the banking basics to keep the export process flawless.
- discuss the importance of understanding the costing principles to calculate the cost of production with all the overheads and the actual price.
- explain the ways of gathering market intelligence.
- explain various transportation means and implications on cost.
- discuss various product lines that can be created depending on the sector of operation.
- discuss basic laws, rules, regulations, etc. regarding business.
- explain vendor management and development.
- discuss pricing techniques.
- discuss business profitability assessment.

Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, White-Board/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
Basic Stationery	
Mandatory Duration: <00:00>	Mandatory Duration: <00:00>
Module Name: On-the-Job Training	80:00
Location: On Site	
Terminal Outcomes	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduate with 6-12 Months of experience in handicraft industry	Product R&D - Ceramics	6 months	Product R&D - Ceramics	6 months	Product R&D - Ceramics	NA

Trainer Certification	
Domain Certification	Platform Certification
Certificate for Job Role: "Modeller" mapped to QP: "HCS/Q0201"	Certified for Job Role: "Trainer " mapped to QP: "MEP/Q0102; V:1.0"

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization <i><Specify the areas of specialization that are desirable.></i>	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduate with 6-12 Months of experience in handicraft industry	Product R&D - Ceramics	6 months	Product R&D - Ceramics	6 months	Product R&D - Ceramics	NA

Assessor Certification	
Domain Certification	Platform Certification
Certificate for Job Role: "Modeller" mapped to QP: "HCS/Q0201"	Certified for Job Role: "Assessor" mapped to QP: "MEP/Q0104; V:1.0"

Assessment Strategy

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

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for each PC.
2. Each NOS will be assessed both for theoretical knowledge and practical
3. The assessment will be based on knowledge bank of questions created by the SSC.
4. Individual assessment agencies will create unique question papers for theory and skill practical part for each candidate at each examination/training centre
5. To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

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).
OJT(M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training onsite
OJT(R)	On-the-job training (Recommended); trainees are recommended the specified hours of training onsite
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 psycho motor 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

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