

Model Curriculum

Glazing Operator (Ceramics)

SECTOR: HANDICRAFTS AND CARPET
SUB-SECTOR: HANDICRAFTS (CERAMICS)
OCCUPATION: FINISHING AND PAINTING
REF ID: HCS/Q0803, V1.0
NSQF LEVEL: 3



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

HANDICRAFTS AND CARPET SECTOR SKILL COUNCIL

for the

MODEL CURRICULUM

Complying to National Occupational Standards of

Job Role/ Qualification Pack: 'Glazing Operator (Ceramics)' No. 'HCS/Qo8o3 NSQF Level 3'

Date of Issuance: **July 9th, 2015**

Valid up to: **July 9th, 2019**

* Valid up to the next review date of the Qualification Pack



Authorised Signatory
(Handicrafts and Carpet Sector Skill Council)

TABLE OF CONTENTS

1. Curriculum	01
2. Trainer Prerequisites	07
3. Annexure: Assessment Criteria	08

Glazing Operator (Ceramics)

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Glazing Operator (Ceramics)”, in the “Handicrafts and Carpet” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Glazing Operator (Ceramics)		
Qualification Pack Name & Reference ID.	HCS/Q0803, v1.0		
Version No.	1.0	Version Update Date	19/09/2018
Pre-requisites to Training	Preferably 5 th pass		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Perform glazing operations on ceramics products • Demonstrate teamwork during inter/intra departmental work or engagement • Maintain Safe work environment • Maintain personal health • Perform basic business management activities 		

This course encompasses 5 out of 5 NOS (National Occupational Standards) of “Glazing Operator (Ceramics)” Qualification Pack issued by “Handicrafts and Carpet Sector Skill Council”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Introduction</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 00:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> Identify different ceramics products Classify the products of Ceramics industry in India Illustrate the use of the various tools and equipment used by a Glazing Operator (Ceramics) 	Clay, Wax, Bucket, Tongs (Nickel plated), Sponge, Stirring Stick, Electrical Balance - 5-500 Kgs, Viscometer, Stop watch
2	<p>Identify required raw materials for preparing glaze mixture</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 20:00</p> <p>Corresponding NOS Code HCS/N0804</p>	<ul style="list-style-type: none"> Identify raw materials for the preparation of glaze mixture according to the type of glaze required Measure and estimate the correct proportion of raw materials for making the glaze mixture Examine and ensure purity of raw materials Organise raw materials to make it available at all time 	Clay, Wax, Bucket, Tongs (Nickel plated), Sponge, Stirring Stick, Electrical Balance - 5-500 Kgs, Viscometer, Stop watch
3	<p>Prepare glaze mixture</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 20:00</p> <p>Corresponding NOS Code HCS/N0804</p>	<ul style="list-style-type: none"> Prepare the raw materials appropriately prior to making the glaze mixture Combine the materials appropriately to form the glaze mixture Prepare the glaze mixture carefully for further usage 	Clay, Wax, Bucket, Tongs (Nickel plated), Sponge, Stirring Stick, Electrical Balance - 5-500 Kgs, Viscometer, Stop watch
4	<p>Perform glazing operation on ceramic products</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code HCS/N0804</p>	<ul style="list-style-type: none"> Arrange the ceramics products that need to be glazed Determine the amount of glaze mixture to be applied with respect to product specifications Apply glaze mixture on the respective products Formulate the glazing process to avoid wastage Evaluate the quality of the performed glazing operation Comply to glazing requirements prior to sending glazed products for further processing 	Clay, Wax, Bucket, Tongs (Nickel plated), Sponge, Stirring Stick, Electrical Balance - 5-500 Kgs, Viscometer, Stop watch

Sr. No.	Module	Key Learning Outcomes	Equipment Required
5	<p>Coordinate with colleagues and work as a team</p> <p>Theory Duration (hh:mm) 05:00</p> <p>Practical Duration (hh:mm) 15:00</p> <p>Corresponding NOS Code HCS/N9901</p>	<ul style="list-style-type: none"> Organize the glazing operation to meet periodical targets and avoid process delays Summarise job order and instructions from reporting supervisor Classify the work output requirements, targets, performance indicators and incentives Formulate plans to deliver quality work on time and report any anticipated reasons for delays Create reports on any grievance, production defect and potential hazard Communicate on possible process flow improvements Communicate maintenance and repair schedules proactively to the supervisor Examine feedback on work standards Develop proper interaction with respective person to clarify any kind of doubt Create reports on shortage or need of raw materials in time Report about the essentials of the completed work to supervisor Communicate with colleagues from within and other departments, clearly and effectively on all aspects, to carry out work efficiently in a team Maintain personal etiquettes – polite language, taking up responsibility, disciplined behaviours towards colleagues, etc. Develop a healthy relationship with colleagues from different functions and understand the nature of their work Decide goals and multi-task when required Resolve conflicts and ensure smooth workflow Identify production requirements Communicate and discuss work flow related difficulties in order to find solutions with mutual agreement Distinguish feedback from Quality Control and rework in order to complete work on time Explain different processes and the process-related attributes to colleagues to enable efficient delivery of work Practice teamwork by coordinating with colleagues and helping them to achieve quality output Develop cooperation, coordination, 	<p>Clay, Wax, Bucket, Tongs (Nickel plated), Sponge, Stirring Stick, Electrical Balance - 5-500 Kgs, Viscometer, Stop watch</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<p>communication and collaboration towards the shared goals for supporting each other's performance while carrying out designated work</p> <ul style="list-style-type: none"> Summarise all the details relating to one's role accurately and as required Create report on the completed work and maintain records for the same 	
6	<p>Maintain safe work environment</p> <p>Theory Duration (hh:mm) 15:00</p> <p>Practical Duration (hh:mm) 25:00</p> <p>Corresponding NOS Code HCS/N9902</p>	<ul style="list-style-type: none"> Comply with safety procedures while on work to prevent accidents Identify adequate safety measures while handling materials, chemicals and tools Choose appropriate personal protective gears while working Perform basic safety checks before operating any tool or electrical equipment Select appropriate and recommended clothing with respect to work environment Demonstrate recommended material handling procedures to control material and personal damage Perform all procedures as per company's work instructions in order to control operational risks Perform duties in a manner which minimizes environmental damage Organise wastes safely and correctly in designated areas as per company's SOP Create reports on accidents, incidents or problems and submit it to the supervisor without delay Maintain zero accident at workplace Maintain safety standards and ascertain no material damage 	Clay, Wax, Bucket, Tongs (Nickel plated), Sponge, Stirring Stick, Electrical Balance - 5-500 Kgs, Viscometer, Stop watch
7	<p>Maintain personal health</p> <p>Theory Duration (hh:mm) 15:00</p> <p>Practical Duration (hh:mm) 25:00</p> <p>Corresponding NOS Code HCS/N9903</p>	<ul style="list-style-type: none"> Identify damages in the PPEs and change them if required Comply to work instructions strictly in order to reduce the amount of pollution at work place Maintain eye protection using proper personal protective equipment Apply protection techniques to protect oneself from potential risks at workplace Formulate preventive health checkups at regular intervals Assess self-health and consult doctor if required Adapt to SOPs for dealing with blisters, scratches, accidental fires or any other type of emergencies at work Identify precautionary measures to 	Clay, Wax, Bucket, Tongs (Nickel plated), Sponge, Stirring Stick, Electrical Balance - 5-500 Kgs, Viscometer, Stop watch

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		ensure that there is no long term ill effect on personal health	
8	<p>Basic business management</p> <p>Theory Duration (hh:mm) 15:00</p> <p>Practical Duration (hh:mm) 25:00</p> <p>Corresponding NOS Code HCS/N9904</p>	<ul style="list-style-type: none"> Plan and allot work the employees of the unit according to their skill and experience Explain to the employees of the unit with required skills to make market relevant and quality products Maximise employee potential Solve grievances or issues raised by employees Manage employee expectations Identify and analyse the cues from the market Implement customer preferences Create product lines based on market preferences Create product lines that are unique and those that could be priced high Estimate product price according to market trends Devise plan to deploy product lines to the market Identify raw materials required with respect to the product lines Choose right price for the right quantity of raw materials to be procured Identify the appropriate locations or agents to procure the raw materials Identify quality materials for procurement Organise proper storage for the procured materials Maintain bills and records of prices of procurements for future reference Maintain healthy vendor relationships Identify the nearest market Analyze the prevalent price for product lines Decide on the most effective means to access the market Devise plans for cost effective transportation to the market Plan product placement according to market requirements Maximise production potential to meet customer expectations Analyze and ascertain low cost of production Maintain the book of accounts related to the business Open and operate a bank account Identify cost effective means of running business 	Clay, Wax, Bucket, Tongs (Nickel plated), Sponge, Stirring Stick, Electrical Balance - 5-500 Kgs, Viscometer, Stop watch

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> Identify various aspects of business that require recording Create formats for recording the various aspects of a business Create various records pertaining to various aspects of business Maintain business records with periodic updation Maintain necessary documents as per local government and regulatory requirement Analyze the records and glean various trends from the same 	
	<p>Total Duration</p> <p>Theory Duration 90:00</p> <p>Practical Duration 160:00</p>	<p>Unique Equipment Required: Computer system, Projector, White board, Marker, Personal Protective Equipments, Clay, Wax, Bucket, Tongs (Nickel plated), Sponge, Stirring Stick, Electrical Balance - 5-500 Kgs, Viscometer, Stop watch</p>	

Grand Total Course Duration: **250 Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Handicrafts and Carpet Sector Skill Council](#))

Trainer Prerequisites for Job role: “Glazing Operator (Ceramics)” mapped to Qualification Pack: “HCS/Q0803, v1.0”

Sr. No.	Area	Details
1	Description	The glazing operator typically prepares the glazing mixture and coats the sketched ceramic product uniformly with this mixture so that the product is ensconced in the mixture with no excess mixture
2	Personal Attributes	The job requires the individual to have hand-eye coordination, ability to manage the mixture, ability to judge requisite amounts of mixture and dexterity so that product is not damaged.
3	Minimum Educational Qualifications	10 th pass
4a	Domain Certification	Certified for Job Role: “ <u>Glazing Operator (Ceramics)</u> ” mapped to QP: “HCS/Q0803, v1.0”. Minimum accepted score is 80%
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q0102”. Minimum accepted % as per respective SSC guidelines is 80%.
5	Experience	<ul style="list-style-type: none"> • Total 3 Years experience, • 2 Years of sector-specific experience, • Min. 1 year of teaching experience

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Glazing Operator (Ceramics)
Qualification Pack	HCS/Q0803, v1.0
Sector Skill Council	Handicrafts and Carpet

Sr. No.	Guidelines for Assessment
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 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 center.
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.

		Total Marks (500)				
HCS/N0804	Perform Glazing of ceramic products					
NOS Element	Performance Criteria		Out of	Theory	Skills Practical	
Prepare of glaze mixture	PC1. identify the raw materials for the glaze mixture according to the type of glaze required	100	6	2	4	
	PC2. take the correct proportion of the raw materials to make the glaze mixture		5	2	3	
	PC3. treat the raw materials in the appropriate manner prior to making the mixture		6	1	5	
	PC4. mix the materials appropriately to form the glaze mixture		6	2	4	
	PC5. set aside the glaze mixture carefully for further usage		3	1	2	
	PC6. return the raw materials to the appropriate storage locations		3	1	2	
Proper application of glaze mixture	PC7. carefully take the ceramics that have to be dipped			4	1	3
	PC8. dip the products in the glaze mixture			6	2	4
	PC9. ensure that no excess glaze mixture hangs-			7	2	5

	on to the product				
	PC10. simultaneously twirl/move the product to ensure uniform application of the glaze mixture		7	2	5
	PC11. check the glazed products if the mixture has been applied uniformly and in right thickness		7	2	5
	PC12. set aside the glazed products carefully for drying		6	2	4
	PC13. clean the area after the glazing		4	1	3
Ensure quality and productivity standards	PC14. able to visually examine the raw materials for purity		4	1	3
	PC15. glaze the products in line with the production schedules		4	1	3
	PC16. ensure that there is no wastage of the materials		4	1	3
	PC17. able to visually examine the glazed product prior to the firing / drying		6	2	4
	PC18. achieve periodical targets set by the supervisor		5	2	3
	PC19. ensure there are no process delays		4	1	3
	PC20. ensure all time availability of materials and coordinate with stores for adequate inventory		3	1	2
		TOTAL Points		100	30

HCS/N9901	Coordinate with colleagues and work as a team				
NOS Element	Performance Criteria		Out of	Theory	Skills Practical
Interact with supervisor	PC1. receive job order and instructions from reporting supervisor	100	4	3	1
	PC2. understand the work output requirements, targets, performance indicators and incentives		5	4	1
	PC3. deliver quality work on time and report any anticipated reasons for delays		5	1	4
	PC4. report on any grievances, production defects and any potential hazards		4	2	2
	PC5. communicate on process flow improvements		4	2	2
	PC6. communicate maintenance and repair schedule proactively to the supervisor		4	1	3
	PC7. receive feedback on work standards		4	2	2
	PC8. interact and clarify doubts on design, usage of materials & tools, quality & standards compliance, etc		5	2	3
	PC9. report in time for shortage or need of raw materials		4	1	3
	PC10. handover completed work to supervisor		4	2	2
Work as a team by coordinating with colleagues within and outside the	PC11. communicate to the colleagues from within and other departments, clearly and effectively on all aspects to carry out the work among the team		5	2	3
	PC12. maintain the etiquettes, use polite language, demonstrate responsible and disciplined behaviours to the colleagues		5	2	3

department	PC13. interact with colleagues from different functions and understand the nature of their work		4	2	2
	PC14. put team over individual goals and multi task or share work where necessary supporting the colleagues		4	2	2
	PC15. resolve conflicts and ensure smooth workflow		4	1	3
	PC16. interact and understand the production requirement for the day from the previous and successive processing department and work accordingly		4	1	3
	PC17. communicate and discuss work flow related difficulties in order to find solutions with mutual agreement		4	1	3
	PC18. receive feedback from Quality Control and rework in order to complete work on time		5	1	4
	PC19. share information with colleagues to enable efficient delivery of work		6	3	3
	PC20. highlight any errors of colleagues, help to rectify and ensure quality output		4	2	2
	PC21. work with cooperation, coordination, communication and collaboration, with shared goals and supporting each other's performance		4	1	3
Report and Document	PC22. document all the details accurately relating to one's role as required		4	1	3
	PC23. report on the work completed and keep it in records		4	1	3
	TOTAL POINTS		100	40	60

HCS/N9902	Maintain safe work environment				
NOS Element	Performance Criteria		Out of	Theory	Skills Practical
Follow safety procedure and practices	PC1. comply with safety procedures while on work to prevent accidents	100	8	2	6
	PC2. take adequate safety measures while handling materials, chemicals and tools		8	2	6
	PC3. wear appropriate personal protective gears such as gloves, protective goggles, masks etc. while working		8	2	6
	PC4. undertake basic safety checks before operation of all tools and electrical equipments		9	2	7
	PC5. wear appropriate and recommended clothing as per the work environment (eg: working in a furnace area)		9	2	7
	PC6. follow recommended material handling procedure to control material and personal damage		8	2	6
	PC7. perform all procedures as per company's work instructions for controlling operational risk		8	4	4
	PC8. perform the duties in a manner which minimizes environmental damage		6	2	4
	PC9. dispose of waste safely and correctly in a		8	2	6

	designated area as per company's SOP				
	PC10. report any accidents, incidents or problems without delay to the supervisor and take necessary immediate action to reduce further danger		8	4	4
Achieve safety standards	PC11. ensure zero accident at workplace		10	2	8
	PC12. adhere to safety standards and ensure no material damage		10	2	8
	TOTAL POINTS		100	28	72

HCS/N9903	Maintain personal health				
NOS Element	Performance Criteria		Out of	Theory	Skills Practical
Adopt healthy work practices	PC1. always cover the mouth and nose with a dust mask while working and keep on changing when it gets blocked with dust	100	12	4	8
	PC2. follow work instructions strictly to reduce the amount of pollution at the work place e.g. wet the rock / craft material before working on it		10	2	8
	PC3. wear protective goggles over eyes and replace them when scratches on it obscure the vision		10	2	8
	PC4. wear gloves as per the materials used for making handicraft to avoid blisters; scratches and cuts		10	2	8
	PC5. undergo preventive health checkups at regular intervals		10	2	8
	PC6. take prompt treatment from the doctor in case of illness		11	3	8
	PC7. follow SOPs for dealing with blisters; scratches; accidental fires or any other type of emergencies at work		11	4	7
Achieve work productivity while maintaining health	PC8. ensure no productivity loss or absenteeism from work due to illness		13	3	10
	PC9. ensure no long term ill effect on the personal health		13	3	10
	TOTAL POINTS		100	25	75

HCS/N9904	Basic business management				
NOS Element	Performance Criteria		Out of	Theory	Skills Practical
People management	PC1. allot work to the employees of the unit according to their skill and experience	100	3	1	2
	PC2. train the employees of his/her unit with the appropriate skills required to make market relevant and quality products		3	1	2
	PC3. motivate the employees		2	1	1
	PC4. handle the grievances/issues that are raised by the employees		2	1	1
	PC5. manage the employee expectations		2	1	1
Product	PC6. gather and analyse the cues from the market		2	1	1

planning	PC7. ascertain the customer preference	3	1	2
	PC8. create product lines based on current market preference	3	1	2
	PC9. create product lines that are unique and able to price high	3	1	2
	PC10. price the products according to market trends	3	1	2
	PC11. decide the best way to market the product lines	3	1	2
Procurement of raw materials	PC12. make a list of raw materials required according to the product lines	2	0	2
	PC13. ascertain the quantity and right price to procure the materials	3	1	2
	PC14. identify the right locations/agents from where the raw materials can be procured	3	1	2
	PC15. negotiate to get the best price	3	0	3
	PC16. ensure quality materials are procured	4	1	3
	PC17. ensure the procured materials are stored in appropriate conditions	3	1	2
	PC18. maintain the bills and record the prices of procurement for future reference	3	1	2
	PC19. maintain healthy vendor relationships	3	1	2
Market interfacing	PC20. identify the nearest market	3	1	2
	PC21. analyze the prevalent price for product lines	3	2	1
	PC22. decide on the most effective means to access the market	2	1	1
	PC23. plan for cost effective transportation to the market	3	1	2
	PC24. position the product according to market requirements	3	1	2
	PC25. manage customer expectations	2	0	2
Financial management	PC26. analyze and ascertain the cost of production	3	1	2
	PC27. maintain the book of accounts related to the business	3	1	2
	PC28. own and operate a bank account	4	2	2
	PC29. identify cost effective means of running business	3	1	2
Record keeping	PC30. identify various aspects of business that require recording	3	2	1
	PC31. create formats for recording	3	2	1
	PC32. make various records pertaining to all aspects of business	3	2	1
	PC33. maintain these records with periodic updation	3	2	1
	PC34. maintain necessary documents as per local government and regulatory requirement	3	2	1
	PC35. analyze the records and glean various trends from the same	3	2	1
TOTAL POINTS		100	40	60