

# Model Curriculum

## Engraving Artisan

**SECTOR: HANDICRAFTS AND CARPET**  
**SUB-SECTOR: Handicrafts (Bamboo Handicrafts)**  
**OCCUPATION: Engraving Artisan**  
**REF ID: HCS/Q 2902, V1.0**  
**NSQF LEVEL: 4**



## Certificate

### COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

**HANDICRAFTS AND CARPET SECTOR SKILL COUNCIL**

for

**SKILLING CONTENT : PARTICIPANT HANDBOOK**

Complying to National Occupational Standards of

Job Role/ Qualification Pack: "Engraving Artisan (Metalware)" QP No."HCS/Q 2902, NSQF Level 4"

Date of Issuance:

Valid up to\*: April 10<sup>th</sup>, 2018

\*Valid up to the next review date of the Qualification Pack or the  
'Valid up to' date mentioned above (whichever is earlier)



Authorised Signatory  
( Handicrafts and Carpet Sector Skill Council)

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# Engraving Artisan

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of an “Engraving Artisan”, in the “Handicrafts and Carpet” Sector/Industry and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Engraving Artisan</b>		
<b>Qualification Pack Name &amp; Reference ID. ID</b>	HCS/Q 2902, v1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	27/05/16
<b>Pre-requisites to Training</b>	5th Standard passed		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• Wear protective goggles over eyes and replace them when scratches on it obscure the vision</li> <li>• Wear gloves as per the materials used for making handicraft to avoid blisters; scratches and cuts</li> <li>• Proper Handling of tools</li> <li>• Sharpening of tools</li> <li>• Managing Ink in tools</li> <li>• Select the appropriate tool such as hammer, chisel, gravers, magnifier, etc. to engrave</li> <li>• Choose the appropriate engraving method based on the type of metal used</li> <li>• Choose the appropriate raw materials according to the engraving method</li> <li>• Trace or outline the design on the metal surface i.e. cut the design onto the surface</li> <li>• Use appropriate tools for hand engraving method for smaller space</li> <li>• Level the inner surface</li> <li>• Carve the design or letters on the metal surface as per design requirement</li> <li>• Perform shading to the engraved portion</li> <li>• Allot work to the employees of the unit according to their skill and experience</li> <li>• Train the employees of his/her unit with the appropriate skills required to make market relevant and quality products</li> <li>• Motivate the employees</li> <li>• Handle the grievances/issues that are raised by the employees</li> </ul>		

This course encompasses 6 out of 6 National Occupational Standards (NOS) of “Engraving” Qualification Pack issued by “Handicrafts and Carpet Sector Skill Council”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p><b>Introduction to trade</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 15:00</p> <p><b>Corresponding NOS Code</b> Bridge Module</p>	<ul style="list-style-type: none"> <li>Learn about the role of Engraving Artisan in industry.</li> <li>Identify the minimum requirement to become a certified Engraving Artisan.</li> <li>Describe the work area of Engraving Artisan.</li> <li>Identify the opportunities available for Engraving Artisan.</li> </ul>	Laptop, PowerPoint & Hand-outs, posters, film clips, white board, marker, projector
2	<p><b>Importance of Safety, Health &amp; Hygiene</b></p> <p><b>Theory Duration</b> (hh:mm) 20:00</p> <p><b>Practical Duration</b> (hh:mm) 30:00</p> <p><b>Corresponding NOS Code</b> HCS/N9903</p>	<ul style="list-style-type: none"> <li>Cover the mouth and nose with a dust mask while working and keep on changing when it gets blocked with dust</li> <li>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</li> <li>Wear protective goggles over eyes and replace them when scratches on it obscure the vision</li> <li>Wear gloves as per the materials used for making handicraft to avoid blisters; scratches and cuts</li> <li>Follow SOPs for dealing with blisters; scratches; accidental fires or any other type of emergencies at work.</li> <li>Ensure no productivity loss or absenteeism from work due to illness</li> <li>Ensure no long term ill effect on the personal health</li> </ul>	PPTs, Handbook, PPE for chemical work and machining, Fire Extinguisher, First-Aid Kit
3	<p><b>Preparation for Engraving</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 30:00</p> <p><b>Corresponding NOS Code</b></p>	<ul style="list-style-type: none"> <li>Proper Handling of tools</li> <li>Sharpening of tools</li> <li>Managing Ink in tools</li> <li>Select the appropriate tool such as hammer, chisel, gravers, magnifier, etc. to engrave</li> <li>Sharpen the tools periodically</li> <li>Collect and arrange the materials to begin the process</li> <li>Report on any shortage or defect of raw materials to the concerned person</li> </ul>	PPTs, Handbook, Videos, Surface grinder, rubbing paper, buffing machine, etching chemical, Geometry Tools, Permanent ink pen, marker, scale, tracing paper, carbon paper, design patterns

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	HCS/N2902	<ul style="list-style-type: none"> <li>☐ Ensure to stock the required materials in advance</li> <li>• Collect the metal product to be engraved design &amp; pattern.</li> <li>☐ Ask questions to obtain more information on tasks when the instructions you have are unclear.</li> </ul>	
4	<p><b>Engraving Design on Metal Surface</b></p> <p><b>Theory Duration</b> (hh:mm) 15:00</p> <p><b>Practical Duration</b> (hh:mm) 40:00</p> <p><b>Corresponding NOS Code</b> HCS/N2903</p>	<ul style="list-style-type: none"> <li>• Choose the appropriate engraving method based on the type of metal used</li> <li>• Choose the appropriate raw materials according to the engraving method</li> <li>• Trace or outline the design on the metal surface i.e. cut the design onto the surface</li> <li>• Use appropriate tools for hand engraving method for smaller space</li> <li>• iHCSriptions</li> <li>• Level the inner surface</li> <li>• Carve the design or letters on the metal surface as per design requirement</li> <li>• Perform shading to the engraved portion</li> <li>• Add varnish to the engraved portion</li> <li>• Ensure accuracy, cleanliness and designing in the engraving process as per requirement</li> <li>• Ensure the target number of pieces are engraved</li> <li>• Ensure the output delivered is defect free and hazard free</li> </ul>	PPTs, Handbook, Videos, Geometry Tools, Permanent ink pen, marker, scale, tracing paper, carbon paper, design patterns hammer, chisel, graver, magnifier, knife, cutter Magnifier, Scale, Tracing, Paper with design patterns
5	<p><b>Basics of Business Management</b></p> <p><b>Theory Duration</b> (hh:mm) 20:00</p> <p><b>Practical Duration</b> (hh:mm) 20:00</p> <p><b>Corresponding NOS Code</b> HCS/N9904</p>	<ul style="list-style-type: none"> <li>• Allot work to the employees of the unit according to their skill and experience</li> <li>• Train the employees of his/her unit with the appropriate skills required to make market relevant and quality products</li> <li>• Motivate the employees</li> <li>• Handle the grievances/issues that are raised by the employees</li> <li>• Manage the employee expectations</li> <li>• Gather and analyze the cues from the market</li> <li>• Ascertain the customer preference</li> <li>• Create product lines based on current market preference</li> <li>• Identify the right locations/agents from where the raw materials can be procured</li> <li>• Negotiate to get the best price</li> <li>• Ensure quality materials are procured</li> <li>• Ensure the procured materials are stored in appropriate conditions</li> <li>• Maintain the bills and record the prices</li> </ul>	Laptop, white board, marker, projector, PPTs. Handbook

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>of procurement for future reference</li> <li>Maintain healthy vendor relationships</li> <li>Identify the nearest market</li> <li>Analyze the prevalent price for product lines</li> <li>Decide on the most effective means to access the market</li> </ul>	
6	<p><b>Team Work</b></p> <p><b>Theory Duration</b> (hh:mm) 04:00</p> <p><b>Practical Duration</b> (hh:mm) 30:00</p> <p><b>Corresponding NOS Code</b> HCS/N9901</p>	<ul style="list-style-type: none"> <li>Receive job order and instructions from reporting supervisor</li> <li>Understand the work output requirements, targets, performance indicators and incentives</li> <li>Deliver quality work on time and report any anticipated reasons for delays</li> <li>Report on any grievances, production defects and any potential hazards</li> <li>Communicate on process flow improvements</li> <li>Communicate maintenance and repair schedule proactively to the supervisor</li> <li>Receive feedback on work standards</li> <li>Interact and clarify doubts on design, usage of materials &amp; tools, quality &amp; standards compliance, etc.</li> <li>Report in time for shortage or need of raw materials</li> </ul>	Laptop, white board, marker, projector, PPTs. Handbook
7	<p><b>Safe Working Environment</b></p> <p><b>Theory Duration</b> (hh:mm) 06:00</p> <p><b>Practical Duration</b> (hh:mm) 30:00</p> <p><b>Corresponding NOS Code</b> HCS/N9902</p>	<ul style="list-style-type: none"> <li>Comply with safety procedures while on work to prevent accidents</li> <li>Take adequate safety measures while handling materials, chemicals and tools</li> <li>Wear appropriate personal protective gears such as gloves, protective goggles, masks etc. while working</li> <li>Undertake basic safety checks before operation of all tools and electrical equipment</li> <li>Wear appropriate and recommended clothing as per the work environment (eg: working in a furnace area )</li> </ul>	PPTs, Handbook, Protective gears like goggles, mask, gloves. Cleaning tools, electricity tester, accident report sheet
9	<p><b>Practice Sessions</b></p> <p><b>Theory Duration</b> (hh:mm) 00:00</p> <p><b>Practical Duration</b> (hh:mm)</p>	<ul style="list-style-type: none"> <li>6 Practice sessions under trainer guidance on bamboo basket making of different shapes and sizes.</li> </ul>	All the tools used in earlier sessions.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	48:00 <b>Corresponding NOS Code</b> N/A		
	<b>Total Duration</b>  <b>Theory Duration</b> <b>85:00</b>  <b>Practical Duration</b> <b>195:00</b>	<b>Unique Equipment Required:</b> Laptop, white board, marker, projector, PPTs, Handbook, Engraving tool, Ink, hammer, chisel, graver, magnifier, knife, cutter, Surface grinder, rubbing paper, buffing machine, etching chemical, marker, scale, tracing paper, carbon paper, design patterns, Computer system, printer, Protective gears like goggles, mask, gloves. Cleaning tools, electricity tester, accident report sheet	

Grand Total Course Duration: **280 Hours, 0 Minutes**

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



## Trainer Prerequisites for Job role: “Engraving Artisan (Metalware)” mapped to Qualification Pack: “HCS/Q2902, v1.0”

Sr. No.	Area	Details
1	<b>Description</b>	The engraving artisan is responsible for engrave the design onto the metal surface by cutting grooves into it.
2	<b>Personal Attributes</b>	An Engraving Artisan should have attention to details, good eyesight, steady hands, ability to sit in same position for longer hours, patience and creativity.
3	<b>Minimum Educational Qualifications</b>	Preferable Class V Pass (Primary Education)
4a	<b>Domain Certification</b>	Certified for Job Role: “ <u>Engraving Artisan (Metalware)</u> ” mapped to QP: “HCS/Q2902, v1.0”. Minimum accepted score is 70%
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/Q1402”. Minimum accepted % as per respective SSC guidelines is 60%.
5	<b>Experience</b>	Minimum 3 years of experience in undertaking Engraving artwork production supervision as well as training/conducting/assisting training or workshops in the handicrafts sector.

### Annexure: Assessment Criteria

<b>Assessment Criteria</b>	
<b>Job Role</b>	<b>Engraving Artisan (Metalware)</b>
<b>Qualification Pack</b>	<b>HCS/Q2902, v1.0</b>
<b>Sector Skill Council</b>	<b>Handicrafts and Carpet</b>

<b>Sr. No.</b>	<b>Guidelines for Assessment</b>
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 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

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
<b>HCS/N2902</b>	<b>Perform pre-engraving requirements</b>				
<b>NOS Element</b>	Performance Criteria		<b>Out of</b>	<b>Theory</b>	<b>Skills Practical</b>
<b>Understanding work requirement</b>	PC1. understand the engraving method for its shape, style, materials, etc.	100	9	4	5
	PC2. understand the design requirement		8	4	4
	PC3. understand the areas to be engraved		8	4	4
	PC4. plan the target on number of pieces to be completed		8	4	4
<b>Assembling the required raw materials</b>	PC5. select the appropriate tool such as hammer, chisel, gravers, magnifier, etc. to engrave		9	4	5
	PC6. sharpen the tools periodically		8	4	4
	PC7. collect and arrange the materials to begin the process		8	4	4
	PC8. report on any shortage or defect of raw materials to the concerned person		8	4	4
	PC9. ensure to stock the required materials in advance		8	4	4
	PC10. collect the metal product to be engraved		8	4	4
<b>Preparing the metal surface</b>	PC11. clean the surface of the metal using a wet cloth and soapy water		9	4	5
	PC12. dry the surface		9	4	5
<b>TOTAL POINTS</b>			100	48	52
<b>HCS/N2903</b>	<b>Engrave design on the metal surface</b>				
<b>NOS Element</b>	Performance Criteria		<b>Out of</b>	<b>Theory</b>	<b>Skills Practical</b>
<b>Creating design on the metal surface</b>	PC1. choose the appropriate engraving method based on the type of metal used	100	7	3	4
	PC2. choose the appropriate raw materials according to the engraving method		7	3	4
	PC3. trace or outline the design on the metal surface i.e. cut the design onto the surface		7	3	4
<b>Engraving the design onto the metal surface</b>	PC4. use the appropriate tool such as graver, hammer, chisel, etc. for engraving styling selecting the tool with appropriate shape and size as required		7	3	4
	PC5. use appropriate tools for hand engraving method for smaller space iHCSriptions		7	3	4
	PC6. level the inner surface		7	3	4
	PC7. carve the design or letters on the metal surface as per design requirement		7	3	4
	PC8. perform shading to the engraved portion		7	3	4
	PC9. add varnish to the engraved portion		7	3	4
	PC10. ensure not to apply too much force during		7	3	4









Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	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	3	2	1	
	local government and regulatory requirement				
	PC35. analyze the records and glean various trends from the same	3	2	1	
	<b>TOTAL POINTS</b>		100	40	60