

MODEL CURRICULUM

GOLDSMITH: COMPONENT MAKER

SECTOR: GEMS & JEWELLERY

SUB-SECTOR: HANDMADE GOLD AND GEMS-SET JEWELLERY

OCCUPATION: GOLD SMITH (BASIC)

REF ID: G&J/Q0603, V1.0

NSQF LEVEL: 3



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

GEM & JEWELLERY SECTOR SKILL COUNCIL OF INDIA

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: **'Goldsmith – Component Maker'** QP No. **'G&J/Q0603 NSQF Level 3'**

Date of Issuance: **October 15th, 2016**

Valid up to: **October 14th, 2018**

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



Mr. Premkumar Kothari
Chairman
(Gem & Jewellery Skill Council of India)

Goldsmith: Component Maker

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Goldsmith: Component Maker”, in the “Gems & Jewellery” Sector/Industry and aims at building the following key competencies amongst the learner.

Program Name	Goldsmith: Component Maker		
Qualification Pack Name & Reference ID.	G&J/Q0603, v1.0		
Version No.	1.0	Version Update Date	Not Applicable
Pre-requisites to Training	10th Standard passed, preferably		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Draw wire or strip from precious metal or alloy bar: Draw wire/strip from gold bar in required thickness/width which is a critical part in making all categories of jewellery and connecting components. • Make ball from precious metal or alloy: Make sheets from gold bar of required gauge to cut them into strips to make balls of specific diameters. • Stamp a gold sheet: Draw sheets from gold bar of required gauge to stamp it with dies. • Make gold chain: Draw wire from gold bar and use them to make chains. • Maintain IPR and respect copyright: Respecting Intellectual Property Rights of company's products and designs to avoid infringement. • Coordinate with co-workers: Encouraging artisan to work as a team and multitask and communicate with colleagues. • Maintain safe work environment: Familiarising artisan towards potential hazards in order to make work environment safe for everyone. 		

This course encompasses 2 out of 2 National Occupational Standards (NOS) of “Goldsmith: Component Maker” Qualification Pack issued by “Gem & Jewellery Skill Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Draw wire or strip from precious metal or alloy bar</p> <p>Theory Duration (hh:mm) 03:00</p> <p>Practical Duration (hh:mm) 25:00</p> <p>Corresponding NOS Code G&J/N0601</p>	<ul style="list-style-type: none"> To read a job sheet and identify raw materials required for job work. To use tools and equipment required for the job To know about metals and their alloys To know usage/operation of rolling mill. To know usage of draw plates for different gauges and different shapes of wires. To know annealing of wires and sheets. To know pickling process. To know heating and cooling process. To be able to control gold loss To be able to detect product defects To be able to check quality To understand jewellery making process To understand the different types of jewellery 	<p>Mandatory - Rolling Mill, Wire Drawing Machine, Work Bench, Steel Scale, Copper Wire, Sulphuric Acid, Draw Plate, Honey Bees Wax, Measuring Gauge, Rod Cutter, Cutter, Plier, Table Brush, Metal Brush, Hand Vise, Triangular File, Plier With Rubber Handle, Metal (Copper and Brass), Napkin (Small Towel), Black Wax, Plaster Of Paris, Metal Weighing Scale, Magnetic Polisher, Sand Blaster, Taper Salai, Salai, Metal Brush</p> <p>Optional – Rubber Wheel, Rubber Bullet.</p>
2	<p>Make ball from precious metal or alloy</p> <p>Theory Duration (hh:mm) 04:00</p> <p>Practical Duration (hh:mm) 35:00</p> <p>Corresponding NOS Code G&J/N0602</p>	<ul style="list-style-type: none"> To know usage and operation of doming blocks. To know usage of operation of disc cutter. To know annealing of sheets. To know pickling process. To know heating and cooling process. To know soldering of domes to form hollow balls. To have knowledge of making hollow balls of different shapes such as hearts, oblong etc. To know filing and smooth finishing of the joined balls. To know drilling of hollow balls to make into beads if required. To be able to control gold loss To be able to detect product defects To be able to check quality To understand jewellery making process To understand the different types of jewellery 	<p>Mandatory – Work Bench, Tweezers, Ball Forming machine, Gas Torch, Stamping Machine, Steel Scale, Sulphuric Acid, Honey Bees Wax, Measuring Gauge, Doming Block, Groover Block, Rod Cutter, Hammer, Doming Punch, Mallet (Horn hammer), Shape Punch, Cutter, Plier, Plier With Rubber Handle, Metal (Copper and Brass), Drill Bits, Napkin (Small Towel), Black Wax, Plaster Of Paris, Metal Weighing Scale,</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> To understand changing dimensions of components used in chain making pre and post pressing as per design. To be able to control gold loss To be able to detect product defects To be able to check quality To understand jewellery making process To understand the different types of jewellery 	Weighing Scale, Double Half File, Saan (Emery Stone), Emery Mandrel, Flux with Solder Plate
5	Maintain IPR and respect copyright Theory Duration (hh:mm) 01:00 Practical Duration (hh:mm) 02:00 Corresponding NOS Code G&J/N9910	<ul style="list-style-type: none"> Respecting Intellectual Property Rights of company's products and designs to avoid infringement 	
6	Coordinate with co-workers Theory Duration (hh:mm) 02:00 Practical Duration (hh:mm) 02:00 Corresponding NOS Code G&J/N9912	<ul style="list-style-type: none"> Learn how to coordinate with supervisor, colleagues and others Learn the importance of interaction and coordination for personal growth 	
7	Maintain safe work environment Theory Duration (hh:mm) 01:00 Practical Duration (hh:mm) 02:00 Corresponding NOS Code G&J/N9914	<ul style="list-style-type: none"> Learn about safety procedures Learn about potential hazards in workplace Learn what to do in an emergency situation Learn to use the fire extinguisher by identifying the appropriate fire Learn how to comply with company safety rules and regulations 	Mandatory - Fire extinguisher
	Total Duration	Unique Equipment Required:	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Theory Duration 24:00</p> <p>Practical Duration 126:00</p>	<p>Rolling Mill, Wire Drawing Machine, Work Bench, Steel Scale, Copper Wire, Sulphuric Acid, Draw Plate, Honey Bees Wax, Measuring Gauge, Rod Cutter, Cutter, Plier, Table Brush, Metal Brush, Hand Vise, Triangular File, Plier With Rubber Handle, Metal (Copper and Brass), Napkin (Small Towel), Black Wax, Plaster Of Paris, Metal Weighing Scale, Magnetic Polisher, Sand Blaster, Taper Salai, Salai, Rubber Wheel, Rubber Bullet, Fire extinguisher, Handle, Metal (Copper and Brass), Saw Blades, Emery Paper, Napkin (Small Towel), Metal Weighing Scale, Double Half File, Saan (Emery Stone), Emery Mandrel, Flux with Solder Plate, Tweezers, Stamping Machine, Flat File, Iron Plate, Hammer, Tongs, Wooden Block, Mallet (Horn hammer), Shape Punch, Metal Scissor, Metal (Copper and Brass), Saw Frame, Strong Motor, Gas Torch, Steel Scale, Measuring Gauge, Rod Cutter, Ball Forming machine, Doming Block, Groover Block, Doming Punch, Drill Bits,</p>	

Grand Total Course Duration: **150 Hours, 0 Minutes**

(This curriculum has been approved by [Gem & Jewellery Skill Council of India](#))

Trainer Prerequisites for Job role: “Goldsmith: Component Maker” mapped to Qualification Pack: “G&J/Q0603, v1.0”

Sr. No.	Area	Details
1	Job Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “G&J/Q0603”, Version 1.0.
2	Personal Attributes	Aptitude for conducting training, and pre/post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	Minimum 10th Standard Passed
4a	Domain Certification	Certified for Job Role: <u>Goldsmith: Component Maker</u> mapped to QP: “G&J/Q0603, v1.0”. Minimum accepted score as per SSC guidelines is 80% on the SSC prescribed online theory assessment test based on an industry validated question bank.
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/1402”. Minimum accepted score for the trainer is 80% as per SSC guidelines.
5	Experience	The minimum required experience for the trainer is 2-3 years in component making.

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Goldsmith: Component Maker
Qualification Pack	G&J/Q0603, v1.0
Sector Skill Council	Gem & Jewellery Skill Council of India

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 Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3	Individual assessment agencies will create theory question papers for candidates at every examination/training centre. (as per assessment criteria below)
4	Individual assessment agencies will create practical tests for skill evaluation for candidates at every examination/training centre. (as per assessment criteria below)
5	To pass the Qualification Pack, every candidate should score a minimum 50% of aggregate marks to successfully clear the assessment
6	In case of successfully passing only certain number of NOSs, the candidate is eligible to take subsequent assessment on the balance NOSs to pass the Qualification Pack.

Assessment outcomes	Assessment Criteria for outcomes	Marks Allocation			
		Total Marks (80+20)	Out Of	Theory	Skills Practical
1. G&J/N0601 Draw wire or strip from precious metal or alloy bar	PC1. Make wire of required thickness and evenness, not over drawn or split or cracked	19	6	2	4
	PC2. Limit precious-metal loss of damaged metal rod or wire		5	1	4
	PC3. Deliver in time, the wires to supervisor		2	0	2
	PC4. Meet productivity target		2	0	2
	PC5. Complete work with minimum hazards and accidents		2	0	2
	PC6. Deliver complete components on time by reporting well in advance, any problems faced or anticipated		2	0	2
Sub Total			19	3	16
2. G&J/N0602 Make ball from precious metal or alloy	PC1. Make balls or beads made of required size and finish as per design	20	6	2	4
	PC2. Make number of balls against the daily target given		2	0	2
	PC3. Avoid wastage in making different sizes of balls		6	2	4
	PC4. Deliver in time the required quantity of balls		2	0	2
	PC5. Complete the work with minimum hazards and accidents		2	0	2
	PC6. Deliver completed balls on time by reporting problems faced or anticipated well in advance		2	0	2
Total			20	4	16

3. G&J/N0603 Stamp on the gold sheet	PC1. Make sheet for stamping without damaging the precious metal	20	6	2	4
	PC2. Maintain accepted tolerance levels		4	1	3
	PC3. Make number of stamped pieces made for specified design		1	0	1
	PC4. Maintain gold loss maintained within prescribed limit		4	1	3
	PC5. Deliver in time		1	0	1
	PC6. Achieve productivity as per target		1	0	1
	PC7. Complete work with minimum hazards and accidents		2	0	2
	PC8. Deliver complete product on time by reporting problems faced or anticipated well in advance		1	0	1
Sub Total			20	4	16
4. G&J/N0604 Make gold chain	PC1. Make wire for chain without damaging the gold	20	6	2	4
	PC2. Make required length of chain as per the specified design		4	1	3
	PC3. Limit loss to under prescribed standards		4	1	3
	PC4. Deliver in time to next process		1	0	1
	PC5. Achieve productivity as targeted		2	0	2
	PC6. Complete work with minimum hazards and accidents		2	0	2
	PC7. Deliver complete product on time by reporting problems faced or anticipated well in advance		1	0	1
Total			20	4	16

5. G&J/N9910 Maintain IPR and respect copyright	PC1. Spot plagiarism and report	7	3	1	2
	PC2. Understand rationale of patents and IPR		3	1	2
	PC3. Avoid being involved in IPR violations		1		1
Sub Total			7	2	5
6. G&J/N9912 Coordinate with others	PC1. Understand the work output requirements	6	2	1	1
	PC2. Comply with company policy and rule		1		1
	PC3. Deliver quality work on time as required by reporting any anticipated reasons for delays		1		1
	PC4. Put team over individual goals		1		1
	PC5. Conflicts resolution and multi-tasking		1		1
Sub Total			6	1	5
7. G&J/N9914 Maintain safe work environment	PC1. Spot and report potential hazards on time	8	3	1	2
	PC2. Follow company policy and rules regarding hazardous materials		3	0	3
	PC3. Deliver quality work on time as required by reporting any anticipated reasons for delays		2	1	1
Sub Total			8	2	6
Grand Total		100	100	20	80
Percentage Weightage:				20%	80%
Minimum Pass % to qualify (aggregate):				50%	