



MODEL CURRICULUM

Casting Expert – Imitation Jewellery

SECTOR: GEMS & JEWELLERY SUB-SECTOR: IMITATION JEWELLERY OCCUPATION: CASTING REF ID: G&J/Q1301, V1.0 NSQF LEVEL: 3











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Casting Expert – Imitation Jewellery

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "<u>Casting Expert – Imitation Jewellery</u>", in the "<u>Gems & Jewellery</u>" Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Casting Expert – Imitation Jewellery				
Qualification Pack Name & Reference ID.	G&J/Q1301, v1.0				
Version No.	1.0Version Update Date10-11-2017				
Pre-requisites to Training	Not Applicable				
Training Outcomes	 After completing this programme, participants will be able to: Operate casting machine: Convert wax models to Imitation jewellery or accessory pieces through metal (Lead, Zinc etc) casting process by precisely controlling machine parameters in order to manufacture jewellery/accessories with minimal rework. Coordinate with co-workers: Communicate with colleagues or clients to work as a team and multitask and communicate with colleagues. Maintain safe work environment: Report potential hazards and contain accidents in order to make the work environment safe for self and colleagues. 				





This course encompasses <u>3</u> out of <u>3</u> National Occupational Standards (NOS) of "<u>Casting Expert –</u> <u>Imitation Jewellery</u>" Qualification Pack issued by "<u>Gem & Jewellery Skill Council of India</u>".

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Operate casting machine Theory Duration (hh:mm) 25:00 Practical Duration (hh:mm) 165:00 Corresponding NOS Code G&J/N1301	 To cast metal (Lead, Zinc etc) To maintain temperatures as required for melting different metals To properly plan casting cycles for the optimum utilization of machines and work as per plan To deliver damage free stones of even colour and well secured To produce number of casted jewellery or accessory pieces as per target deliverable and quality approved by the supervisor To produce defect-free casted jewellery or accessory pieces To do casting process with minimum damage to the set stones To produce Quality Control okayed cast jewellery piece To deliver casted jewellery pieces on time by reporting problems faced or anticipated well in advance 	KequiredMandatory –White Board/BlackBoard Marker/Chalk, Duster,Notepads, Pens,Pencils, BlankSheets, Metal,Samples ofCommon MetalsUsed in ImitationJewelleryManufacturingIncluding Copper,Lead, Tin, Nickel,Steel, Zinc, Brassetc., Blank JobSheetsSample Job Sheetwith AllRequirementsFilled in, DifferentTypes of JewellerySamples (As PerParticipantHandbook),Samples of Alloysused in ImitationJewellery, CastingMachine withComponents andAccessories,Rubber SprueBase, Iron Pan,Plier, Steel Spoon,Tongs, StirringRod, Filer,Burner/stove (withtemperatureindicator), BladeCutter, DrillingMachine, SmallBuffing Machine,Exhaust Fan,Measuring Gauge,Water Tubs,Weighing Scale,Casting Gloves,ProtectiveEyeglasses andFace Mask, MetalCleaning Brush,Cleaning Brush,Cleaning





Sr.	Module	Key Learning Outcomes	Equipment	
No.			Required Cloth/Cotton Cloth, Tray, Screw Driver, Silicon Rubber Dye, Metal Cutter, master dye of different jewellery samples Optional – Computer or Laptop Attached to LCD Projector, Iron Hammer,	
2	Coordinate with co- workers Theory Duration (hh:mm) 02:00 Practical Duration (hh:mm) 03:00 Corresponding NOS Code G&J/N9904	 To coordinate with supervisor to understand the work output requirements. To communicate with supervisor about company policies and rules. To coordinate with supervisor timely delivery of work and report any anticipated delays. To coordinate with colleagues as a team to achieve team goals. To resolve conflicts by communicating with colleagues and other departments. To multi-task relevant activities. 	Table FanMandatory –White Board/BlackBoard Marker/Chalk, DusterNotepads, Pens,Pencils, BlankSheetsOptional –Computer orLaptop Attached toLCD Projector	
3	Maintain safe work environment Theory Duration (hh:mm) 02:00 Practical Duration (hh:mm) 03:00 Corresponding NOS Code G&J/N9905	 To report about potential sources of danger. To use precautionary methods and fire extinguisher in case of fire. To use first aid procedure in case of emergencies. To use and wear recommended safety gears as per company policies. 	Mandatory – Safety Hand Gloves, Fire Extinguisher, First Aid Kit Optional – Computer or Laptop Attached to LCD Projector	
	Total Duration Theory Duration 29:00 Practical Duration 171:00	 Unique Equipment Required: White Board/Black Board Marker/ Chalk, Duster, Notepads, Pens, Pencils, Blank Sheets, Metal, Samples Common Metals Used in Imitation Jewellery Manufactur Including Copper, Lead, Tin, Nickel, Steel, Zinc, Brass e Blank Job Sheets Sample Job Sheet with All Requirements Filled in, Differ Types of Jewellery Samples (As Per Participant Handbox Samples of Alloys used in Imitation Jewellery, Casting N with Components and Accessories, Rubber Sprue Base Pan, Plier, Steel Spoon, Tongs, Stirring Rod, Filer, Burn (with temperature indicator), Blade Cutter, Drilling Mach 		





Sr. No.	Module	Key Learning Outcomes	Equipment Required
		Key Learning Outcomes	

Grand Total Course Duration: 200 Hours, 0 Minutes

(This syllabus/ curriculum has been approved by Gem & Jewellery Skill Council of India





Trainer Prerequisites for Job role: "Casting Expert – Imitation Jewellery" mapped to Qualification Pack: "G&J/Q1301, 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 " <u>G&J/Q1301</u> ", 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	12 th standard pass
4a	Domain Certification	Certified for Job Role: <u>Casting Expert – Imitation Jewellery</u> mapped to QP: " <u>G&J/Q1301, v1.0</u> ". 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 trainers is 80% as per respective SSC guidelines.
5	Experience	The minimum experience required is 5 years in QC/ trainer/ manager/ team leader/ supervisor Casting.





Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Casting Expert – Imitation Jewellery
Qualification Pack	G&J/Q1301, 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	Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6	To pass the Qualification Pack , every trainee should score a minimum of 50% of aggregate marks to successfully clear the assessment.
7	In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.







		Marks Allocation			
Assessment outcomes	Assessment Criteria for outcomes	Total Mark (20+80)	Out of	Theory	Skills Practical
	PC1. Calculate metal required for the order		5	0	5
	PC2. Handle molten metal with less risks		5	0	5
	PC3. Understand and implement melting requirements as per different metals		5	2	3
	PC4. Pour metal at the right temperature		10	3	7
	PC5. plan casting cycles properly for the optimum utilization of machines and work as per plan		5	0	5
1.G&J/N1301 Operate	PC6. Timely deliver casted jewellery pieces to next process	60	4	0	4
casting machine	PC7. Produce number of casted jewellery/accessory pieces as per target deliverable and quality approved by the supervisor		10	5	5
	PC8. Produce defect-free casted jewellery/ accessory pieces		3	0	3
	PC9. Do casting process with minimum damage to the set stones		5	0	5
	PC10. Produce Quality Control okayed cast jewellery piece		5	0	5
	PC11. Deliver casted jewellery pieces on time by reporting problems faced or anticipated well in advance		3	0	3
	Sub Total		60	10	50
	PC1. Understand the work output requirements and work accordingly		3	1	2
2. G&J/N9904 Coordinate with co-	PC2. Communicate to reporting supervisor about process-flow improvements, product defects received from previous process, repairs and maintenance of tools and machinery as required	20	1	0	1
workers	PC3. Handover completed work to supervisor		1	0	1
	PC4. Deliver quality work on time as required by reporting any anticipated reasons		2	1	1







	Minimum Pass% to qualify (aggree	gate):		5	0%
	Percentage Weightage:			20%	80%
	Grand Total	100	100	20	80
	evacuation procedure properly during a fire Sub Total		2 20	5	2 15
	it if required PC10. Understand and follow the	20	2	0	2
	PC9. Be alert about designated assembly area in the event of an emergency and use		2	1	1
	PC8. Learn first aid procedure and make the use of it when needed		2	1	1
	PC7. Attend fire drills organised by the company or industrial zone		2	0	2
work environment	PC6. Understand which safety gear must be used for a particular task and use that accordingly		2	1	1
3. G&J/N9905 Maintain safe	PC5. Stay away from electrical problems that could result in accident		2	0	2
	PC4. Work according to process flow improvements that can reduce anticipated or repetitive hazards		2	0	2
	PC3. Attend and actively participate in the health and safety campaigns organised by the company		2	0	2
	PC2. Follow company policy and rules regarding use of hazardous materials		2	1	1
	PC1. Spot and report potential hazards on time		2	1	1
	Sub Total		20	5	15
	PC9. Work with colleagues of other departments		3	1	2
	PC8. Learn how to multi-task relevant activities and apply that in various situations		1	0	1
	PC7. Resolve conflicts		3	0	3
	PC6. Put team over individual goals and work with team		3	1	2
	PC5. Comply with company policy and rules and work accordingly		3	1	2