







## **BRIDGE TRAINING MODEL CURRICULUM**

## **Goldsmith: Frame Maker**

**SECTOR: GEM & JEWELLERY** 

**SUB-SECTOR: HANDMADE GOLD AND GEMS-SET** 

**JEWELLERY** 

**OCCUPATION: GOLDSMITH (BASIC)** 

REF ID: G&J/Q0604, V1.0

NSQF LEVEL: 4









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| Program Name                               | Polisher and Cleaner   |
|--|--|
| Qualification Pack Name<br>& Reference ID. | G&J/Q0604, v1.1  |
| Pre-requisites to Training                 | 10th standard  |
| Training Outcomes                          | After completing this programme, participants will be able to:  Understand jewellery market scenario in India.  Understand carrier opportunities in G&J sector for Industry.  How to work in team.  Understand pre-requisites to become an entrepreneur.  Order raw material like metal and components for making frame as per design specification  Draw wire or roll strip from precious metal or alloy bar and make various frame parts  Make, assemble and finish frame and components  Understand the benefits and use of latest technologies like laser welding, Investment casting and gold assaying.  Detection and repair of defects occurred during assembling and soldering processes.  Follow Best bench practices to maintain minimum gold loss or able to maintain predefined metal weight tolerance  Implement 5 S (LEAN_methodology) at work place  Follow safety practices at the work place (PPE & MSDS) |









#### **CURRICULUM / SYLLABUS**

This program is aimed at training candidates for the job of a "<u>Goldsmith: Frame Maker</u>", in the "<u>Gem & Jewellery</u>" Sector/Industry and aims at building the following key competencies amongst the learner

| Sr.<br>No.   | Module   | Key Learning Outcomes   | Equipment<br>Required |
|--|--|---|-----------------------|
| 1 Draw wire or roll strip from precious metal or alloy bar and make various frame  Theory Duration (hh:mm) 20:00  Practical Duration (hh:mm) 10:00  Corresponding NOS Code G&J/N0605 | <ul> <li>Understand design specifications in terms of regional style applicable, types of alloy of gold, components and stones required; weight; entire jewellery making process flow, and delivery schedule</li> <li>Assess quantity of gold required for frame and component based on product or style type and design</li> <li>Roll or draw wire, sheet or strip from precious metal or alloy bar as per design requirement</li> <li>Cut and saw wire or sheet to make the frame piece</li> <li>Create designs by stamping, embossing, scraping, as per design</li> <li>Share advantages and process of Laser welding.</li> <li>Share advantages and process of Gold assaying (XRF &amp; Fire assay)</li> </ul> | Computer or Laptop Attached to LCD Projector for Presentation,  White Board/Black Board Marker/ Chalk, Duster, Notepads, Pens, Pencils, Blank Sheets,  Rolling Mill, Wire Drawing Machine, Stamping Machine, Copper Wire, Draw Plate, Saw Frame, Rod Cutter, Iron Plate, Bending Blocks or Swage, Cutter, Metal Sheets (Copper and Brass) |                       |
|  | Code   |   |                       |









| Sr.<br>No. | Module  | Key Learning Outcomes  | Equipment<br>Required  |
|------------|---|--|--|
| 2          | Make, assemble and finish frame and components using traditional and advanced technology  Theory Duration (hh:mm) 23:00  Practical Duration (hh:mm) 15:00  Corresponding NOS Code G&J/N0605 | <ul> <li>Lay the frame pieces on wax or lac and set in Plaster of Paris (PoP) mixture or customised jigs</li> <li>Solder components and frame to link frame pieces as per design using manual and laser soldering machine</li> <li>Perform cleaning of frame using water or chemical solution</li> <li>Assemble locks and hinges as per design by soldering or manual linking</li> <li>Understand and ensure preventive maintenance of various machines, tools and equipments</li> <li>Ensure and demonstrate self-quality checks during various stages of filing, linking and to rework or repair various surface defects</li> <li>Understand the benefits and demonstrate the implementation of 5s LEAN Manufacturing practices at work place</li> <li>Sort</li> <li>Organize</li> <li>Speak &amp; Span (Cleanliness)</li> <li>Standardized</li> <li>Sustain</li> <li>Understand and demonstrate the use of Vacuum dust collector and manual dust collection methods for better gold recovery</li> </ul> | Work Bench, Tweezers, Strong Motor, Ball Forming machine, Gas Torch, Sulphuric Acid, Honey Bees Wax, Magnetic Polisher, Round File, Flat File, Double Half File, Saw Frame, Measuring Gauge, Doming Block, Groover Block, Iron Plate, Ring Rod, Ring Sizer, Bangle, Drill Bit Sizer, Full File Set, Cutter, Flux with Solder Plate, Cup Bur Tools, Ring Clamp/ Metal Holder  Computer or Laptop Attached to LCD Projector for Presentation,  White Board/Black Board Marker/ Chalk, Duster, Notepads, Pens, Pencils, Blank Sheets, |









| Sr.<br>No. | Module   | Key Learning Outcomes   | Equipment<br>Required   |
|------------|--|---|---|
|            | Total Duration  Theory Duration  43:00 (hh:mm) | Work Bench, Tweezers, Strong Motor, Ball Fo<br>Torch, Sulphuric Acid, Honey Bees Wax, Magn<br>File, Flat File, Double Half File, Saw Frame, M<br>Doming Block, Groover Block, Iron Plate, Ring<br>Bangle, Drill Bit Sizer, Full File Set, Cutter, Flu<br>Bur Tools, Ring Clamp/ Metal Holder, Rolling N<br>Machine, Stamping Machine, Copper Wire, Do<br>Rod Cutter, Iron Plate, Bending Blocks or Swa<br>Sheets (Copper and Brass) | netic Polisher, Round<br>easuring Gauge,<br>g Rod, Ring Sizer,<br>x with Solder Plate, Cup<br>Mill, Wire Drawing<br>raw Plate, Saw Frame, |
|            | Practical Duration 25:00 (hh:mm)               | Computer or Laptop Attached to LCD Project White Board/Black Board Marker/ Chalk, Dust Notepads, Pens, Pencils, Blank Sheets,   |   |









## Trainer Prerequisites for Job role: "Goldsmith: Frame Maker" mapped to Qualification Pack: "G&J/Q0604, v1.1" For Bridge Course Training.

| Sr.<br>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/Qo6o4", Version 1.1.   |
| 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 | 10 <sup>th</sup> standard   |
| 4          | Experience                         | The minimum experience required is 3 years in QC/ trainer/ supervisor Frame Making.   |