

Government of Pakistan

**National Vocational and Technical Training Commission**

**Prime Minister's Hunarmand Pakistan Program**

"Skills for All"



**Course Contents/ Lesson Plan**

**Course Title:** Gemstone Cutting Polishing & Carving

**Duration:** 6 Months

**Revised Edition**

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| <b>Trainer Name</b>                | Haroon ur Rasheed, Naveed Khan, Muhammad Hamza & Zahid Khan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Course Title</b>                | <b>Gemstone Cutting Polishing &amp; Carving</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Objectives and Expectations</b> | <p><b>Employable skills and hands-on practice in Gemstone cutting / Polishing &amp; Carving</b></p> <p>This is a special course designed to address unemployment in the youth. The course aims to achieve the above objective through hands on practical training delivery by a team of dedicated professionals having rich market/work experience. This course is therefore not just for developing a theoretical understanding/back ground of the trainees. Contrary to that, it is primarily aimed at equipping the trainees to perform commercially in a market space in independent capacity or as a member of a team.</p> <p>The course therefore is designed to impart not only technical skills but also soft skills (i.e. interpersonal/communication skills; personal grooming of the trainees etc.) as well as entrepreneurial skills (i.e. marketing skills; free lancing etc.). The course also seeks to inculcate work ethics to foster better citizenship in general and improve the image of Pakistani work force in particular.</p> <p><b><u>Main Expectations:</u></b></p> <p>In short, the course under reference should be delivered by professional instructors in such a robust hands-on manner that the trainees are comfortably able to employ their skills for earning money (through wage/self-employment) at its conclusion.</p> <p>This course thus clearly goes beyond the domain of the traditional training practices in vogue and underscores an expectation that a market-centric approach will be adopted as the main driving force while delivering it. The instructors should therefore be experienced enough to be able to identify the training needs for the possible market roles available out there. Moreover, they should also know the strengths and weaknesses of each trainee to prepare them for such market roles during/after the training.</p> <ol style="list-style-type: none"> <li>i. Specially designed practical tasks to be performed by the trainees have been included in the Annexure-I to this document. The record of all tasks performed individually or in groups must be preserved by the management of the training Institute clearly labeling name, trade, session, etc. so that these are ready to be physically inspected/verified through monitoring visits from time to time. The weekly distribution of tasks has also been indicated in the weekly lesson plan given in this document.</li> <li>ii. To materialize the main expectations, a special module on <b><u>Job Search &amp; Entrepreneurial Skills</u></b> has been included in the latter part of this course (5<sup>th</sup> &amp; 6<sup>th</sup> month) through which, the trainees will be made aware of the Job search techniques in the local as well as international job markets (Gulf countries). Awareness around the visa process and immigration laws of the most favored labor destination countries also form a part of this module. Moreover, the trainees would also be encouraged to venture into self-employment and exposed to the main requirements in this regard. It is also expected that a sense of civic</li> </ol> |

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|  | <p>duties/roles and responsibilities will also be inculcated in the trainees to make them responsible citizens of the country.</p> <p>iii. A module on <b>Work Place Ethics</b> has also been included to highlight the importance of good and positive behavior in the workplace in the line with the best practices elsewhere in the world. An outline of such qualities has been given in the Appendix to this document. Its importance should be conveyed in a format that is attractive and interesting for the trainees such as through PPT slides +short video documentaries. Needless to say that if the training provider puts his heart and soul into these otherwise non-technical components, the image of the Pakistani workforce would undergo a positive transformation in the local as well as international job markets.</p> <p>To maintain interest and motivation of the trainees throughout the course, modern techniques such as:</p> <ul style="list-style-type: none"> <li>• Motivational Lectures</li> <li>• Success Stories</li> <li>• Case Studies</li> </ul> <p>These techniques would be employed as an additional training tool wherever possible (these are explained in the subsequent section on Training Methodology).</p> <p>Lastly, evaluation of the competencies acquired by the trainees will be done objectively at various stages of the training and a proper record of the same will be maintained. Suffice to say that for such evaluations, practical tasks would be designed by the training providers to gauge the problem-solving abilities of the trainees.</p> <p><b>(i) Motivational Lectures</b></p> <p>The proposed methodology for the training under reference employs motivation as a tool. Hence besides the purely technical content, a trainer is required to include elements of motivation in his/her lecture. To inspire the trainees to utilize the training opportunity to the full and strive towards professional excellence. Motivational lectures may also include general topics such as the importance of moral values and civic role &amp; responsibilities as a Pakistani. A motivational lecture should be delivered with enough zeal to produce a deep impact on the trainees. It may comprise of the following:</p> <ul style="list-style-type: none"> <li>• Clear Purpose to convey the message to trainees effectively.</li> <li>• Personal Story to quote as an example to follow.</li> <li>• Trainees Fit so that the situation is actionable by trainees and not represent a just idealism.</li> <li>• Ending Points to persuade the trainees on changing themselves.</li> </ul> <p>A good motivational lecture should help drive creativity, curiosity, and spark the desire needed for trainees to want to learn more.</p> <p>The impact of a successful motivational strategy is amongst others commonly visible in increased class participation ratios. It increases the trainees' willingness to be engaged on the practical tasks for a longer time without boredom and loss of interest because they can see in their mind's eye where their hard work would take them in short (1-3 years); medium (3 -10 years) and long term (more than 10 years).</p> <p>As this tool is expected that the training providers would make arrangements for regular well planned motivational lectures as part of a coordinated strategy interspersed throughout the training period as suggested in the weekly lesson</p> |
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plans in this document.

Course-related motivational lectures online link is available in **Annexure-II**.

### **(ii) Success Stories**

Another effective way of motivating the trainees is using Success Stories. Its inclusion in the weekly lesson plan at regular intervals has been recommended till the end of the training.

A success story may be disseminated orally, through a presentation, or using a video/documentary of someone that has risen to fortune, acclaim, or brilliant achievement. A success story shows how a person achieved his goal through hard work, dedication, and devotion. An inspiring success story contains compelling and significant facts articulated clearly and easily comprehensible words. Moreover, it is helpful if it is assumed that the reader/listener knows nothing of what is being revealed. The optimum impact is created when the story is revealed in the form of:-

- Directly in person (At least 2-3 cases must be arranged by the training institute)
- Through an audio/ videotaped message (2-3 high-quality videos must be arranged by the training institute)

It is expected that the training provider would collect relevant high-quality success stories for inclusion in the training as suggested in the weekly lesson plan given in this document.

The suggestive structure and sequence of a sample success story and its various shapes can be seen in **Annexure III**.

### **(iii) Case Studies**

Where a situation allows, case studies can also be presented to the trainees to widen their understanding of the real-life specific problem/situation and to explore the solutions.

In simple terms, the case study method of teaching uses a real-life case example/a typical case to demonstrate a phenomenon in action and explain theoretical as well as practical aspects of the knowledge related to the same. It is an effective way to help the trainees comprehend in depth both the theoretical and practical aspects of the complex phenomenon in depth with ease. Case teaching can also stimulate the trainees to participate in discussions and thereby boost their confidence. It also makes the classroom atmosphere interesting thus maintaining the trainee interest in training till the end of the course.

Depending on suitability to the trade, the weekly lesson plan in this document may suggest case studies be presented to the trainees. The trainer may adopt a PowerPoint presentation or video format for such case studies whichever is deemed suitable but only those cases must be selected that are relevant and of a learning value.

The Trainees should be required and supervised to carefully analyze the cases.

For this purpose, they must be encouraged to inquire and collect specific information/data, actively participate in the discussions, and intended solutions to the problem/situation.

Case studies can be implemented in the following ways: -

- i. A good quality trade-specific documentary ( At least 2-3 documentaries must be arranged by the training institute)
- ii. Health & Safety case studies (2 cases regarding safety and

|                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                        | <p>industrial accidents must be arranged by the training institute)</p> <p>iii. Field visits( At least one visit to a trade-specific major industry/ site must be arranged by the training institute)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Entry-level of trainees</b>                         | <ul style="list-style-type: none"> <li>• Matriculation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Learning Outcomes of the course</b>                 | <p>By the end of this course, the trainees will be able to understand the following competencies:</p> <ul style="list-style-type: none"> <li>• Separation of Natural &amp; Synthetic gemstones</li> <li>• Separation of Natural &amp; Treated gemstones</li> <li>• Separation of Natural &amp; Imitation gemstones</li> <li>• Knowledge of Treatment in gemstones</li> <li>• Knowledge of gemstone testing instruments</li> <li>• Knowledge about Pakistan gemstones</li> <li>• Skill about cabochon, jeweler article, engraving carving, making of fish, frog and birds etc.</li> <li>• Skill of making different other decorating items.</li> <li>• Skill about cutting &amp; polishing i.e. round brilliant cut, step cut, modified brilliant cut, French star cut, Emerald cut, Portuguese cut, Asscher cut, Cushion cut and Double diamond cut etc.</li> </ul> |
| <b>Course Execution Plan</b>                           | <p>The total duration of the course:<b>6 months (24 Weeks)</b></p> <p>Class hours:<b>4 hours per day</b></p> <p>Theory:<b>20%</b></p> <p>Practical: <b>80%</b></p> <p>Weekly hours: <b>20 hours per week</b></p> <p>Total contact hours: <b>480 hours</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Companies offering jobs in the respective trade</b> | <ul style="list-style-type: none"> <li>• Public sector organization</li> <li>• Private gems and Jewellery sector</li> <li>• Self employment</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Job Opportunities</b>                               | <ul style="list-style-type: none"> <li>• Public sector organization</li> <li>• Private gems and Jewellery sector</li> <li>• Self employment</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>No of Students</b>                                  | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Learning Place</b>                                  | Classroom / Lab                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Instructional Resources</b>                         | <ul style="list-style-type: none"> <li>• <a href="#">How to Use the Polariscope - YouTube</a></li> <li>• <a href="#">How to Use the Polariscope - YouTube</a></li> <li>• <a href="#">How To Identify a Gemstone using a refractometer - YouTube</a></li> <li>• <a href="#">Geology 101: Natural Processes that Form Colored Gemstones   GIA Knowledge Sessions Webinar Series - YouTube</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## MODULES

| Schedu<br>led<br>Weeks | Module Title                                                         | Days  | Hours  | Learning Units                                                                      | Home<br>Assignment                                                    |
|------------------------|----------------------------------------------------------------------|-------|--------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Week 1                 | Introduction to Gemology, Basic Terminologies & Motivational lecture | Day1  | Hour 1 | What is Gemology, Gemstone and Gemologist?                                          | <b>•Task 1</b><br><br><i><u>Details may be seen at Annexure-I</u></i> |
|                        |                                                                      |       | Hour 2 | What is beauty, rarity and durability?                                              |                                                                       |
|                        |                                                                      |       | Hour 3 | Physical properties of gemstones such as hardness and hardness scale (Moh's Scale). |                                                                       |
|                        |                                                                      |       | Hour 4 | Toughness, Stability, Fracture, Cleavage, Parting and streak.                       |                                                                       |
|                        |                                                                      | Day 2 | Hour 1 | Transparency of Gemstone                                                            |                                                                       |
|                        |                                                                      |       | Hour 2 | Introduction: Luster of Gemstone                                                    |                                                                       |
|                        |                                                                      |       | Hour 3 | Metallic luster, Adamantine luster                                                  |                                                                       |
|                        |                                                                      |       | Hour 4 | Vitreous luster, Waxy luster                                                        |                                                                       |
|                        |                                                                      | Day 3 | Hour 1 | Pearly luster, Silky luster                                                         |                                                                       |
|                        |                                                                      |       | Hour 2 | Shape of Stone (Cut/Rough)                                                          |                                                                       |
|                        |                                                                      |       | Hour 3 | Natural Gemstone                                                                    |                                                                       |
|                        |                                                                      |       | Hour 4 | Synthetic Gemstone                                                                  |                                                                       |
|                        |                                                                      | Day 4 | Hour 1 | Imitation / stimulant gemstone                                                      |                                                                       |

|        |                                        |       |        |                                                         |                                                                |
|--------|----------------------------------------|-------|--------|---------------------------------------------------------|----------------------------------------------------------------|
|        |                                        |       | Hour 2 | Treated Gemstone                                        |                                                                |
|        |                                        |       | Hour 3 | Organic gemstones.                                      |                                                                |
|        |                                        |       | Hour 4 | Inorganic gemstone                                      |                                                                |
|        |                                        |       | Hour 4 | Inorganic gemstone                                      |                                                                |
|        |                                        | Day 5 | Hour 1 | Composite / Assembled Gemstone                          |                                                                |
|        |                                        |       | Hour 2 | Composite / Assembled Gemstone                          |                                                                |
|        |                                        |       | Hour 3 | Motivational lecture                                    |                                                                |
|        |                                        |       | Hour 4 | Motivational lecture                                    |                                                                |
| Week 2 | Introduction to Rough Natural Gemstone | Day 1 | Hour 1 | Introduction: Crystal system                            | <b>•Task 2</b><br><br><u>Details may be seen at Annexure-I</u> |
|        |                                        |       | Hour 2 | Cubic Crystal system.                                   |                                                                |
|        |                                        |       | Hour 3 | Trigonal, Tetragonal and Hexagonal crystal systems.     |                                                                |
|        |                                        |       | Hour 4 | Monoclinic, Triclinic and Orthorhombic crystal systems. |                                                                |
|        |                                        | Day 1 | Hour 1 | Introduction: Beryl Family                              |                                                                |
|        |                                        |       | Hour 2 | Physical properties of Beryl Family                     |                                                                |
|        |                                        |       | Hour 3 | Physical properties of Beryl Family                     |                                                                |
|        |                                        |       | Hour 4 | Physical properties of Beryl Family                     |                                                                |

|        |                                                                                          |       |        |                                          |                                                                       |
|--------|------------------------------------------------------------------------------------------|-------|--------|------------------------------------------|-----------------------------------------------------------------------|
|        |                                                                                          | Day 3 | Hour 1 | Introduction: Corundum Family            |                                                                       |
|        |                                                                                          |       | Hour 2 | Physical properties of corundum Family   |                                                                       |
|        |                                                                                          |       | Hour 3 | Physical properties of corundum Family   |                                                                       |
|        |                                                                                          |       | Hour 4 | Physical properties of corundum Family   |                                                                       |
|        |                                                                                          | Day 4 | Hour 1 | Introduction: Tourmaline Family          |                                                                       |
|        |                                                                                          |       | Hour 2 | Physical properties of Tourmaline Family |                                                                       |
|        |                                                                                          |       | Hour 3 | Physical properties of Tourmaline Family |                                                                       |
|        |                                                                                          |       | Hour 4 | Physical properties of Tourmaline Family |                                                                       |
|        |                                                                                          | Day 5 | Hour 1 | Introduction: Quartz Family              |                                                                       |
|        |                                                                                          |       | Hour 2 | Physical properties of Quartz Family     |                                                                       |
|        |                                                                                          |       | Hour 3 | Physical properties of Quartz Family     |                                                                       |
|        |                                                                                          |       | Hour 4 | Physical properties of Quartz Family     |                                                                       |
| Week 3 | Introduction to Gemstone Instruments & their uses and Job Search/ Entrepreneurial skills | Day1  | Hour 1 | Introduction: Garnet Family              | <b>•Task 3</b><br><br><i><u>Details may be seen at Annexure-I</u></i> |
|        |                                                                                          |       | Hour 2 | Physical properties of garnet Family     |                                                                       |
|        |                                                                                          |       | Hour 3 | Physical properties of garnet Family     |                                                                       |
|        |                                                                                          |       | Hour 4 | Physical properties of garnet Family     |                                                                       |



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|  |  | <b>Day 2</b> | <b>Hour 1</b> | Introduction: 10 X loupe                                              |  |
|  |  |              | <b>Hour 2</b> | Observation of Gemstone on 10 X loupe                                 |  |
|  |  |              | <b>Hour 3</b> | Internal observation of 10x Loupe.                                    |  |
|  |  |              | <b>Hour 4</b> | External observation of 10x loupe.                                    |  |
|  |  | <b>Day 3</b> | <b>Hour 1</b> | Introduction: Polariscope                                             |  |
|  |  |              | <b>Hour 2</b> | Isotropic Gemstone                                                    |  |
|  |  |              | <b>Hour 3</b> | Anisotropic Gemstone                                                  |  |
|  |  |              | <b>Hour 4</b> | Polycrystalline Gemstone and Amorphous.                               |  |
|  |  | <b>Day 4</b> | <b>Hour 1</b> | Introduction: Refractive meter                                        |  |
|  |  |              | <b>Hour 2</b> | Identification of different Gemstone on the basis of Refractive index |  |
|  |  |              | <b>Hour 3</b> | Identification of different Gemstone on the basis of Refractive index |  |
|  |  |              | <b>Hour 4</b> | Identification of different Gemstone on the basis of Refractive index |  |
|  |  | <b>Day 5</b> | <b>Hour 1</b> | Identification of different Gemstone on the basis of Refractive index |  |
|  |  |              | <b>Hour 2</b> | Identification of different Gemstone on the basis of Refractive index |  |

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|--------|------------------------------------|-------|--------|---------------------------------------------------------------|------------------------------------------------------------------------|
|        |                                    |       | Hour 3 | Job Search/<br>Entrepreneurial skills                         |                                                                        |
|        |                                    |       | Hour 4 | Job Search/<br>Entrepreneurial skills                         |                                                                        |
| Week 4 | Identification of<br>Cut gemstones | Day1  | Hour 1 | Introduction: Dichroscope                                     | <b>•Task 4</b><br><br><u>Details may<br/>be seen at<br/>Annexure-I</u> |
|        |                                    |       | Hour 2 | Types of Dichroscopes                                         |                                                                        |
|        |                                    |       | Hour 3 | What is Pleochroism and<br>Dichroism?                         |                                                                        |
|        |                                    |       | Hour 4 | What is Trichroism.                                           |                                                                        |
|        |                                    | Day 2 | Hour 1 | Introduction: Spectroscope                                    |                                                                        |
|        |                                    |       | Hour 2 | Types of Spectroscopes                                        |                                                                        |
|        |                                    |       | Hour 3 | Uses of spectroscope                                          |                                                                        |
|        |                                    |       | Hour 4 | Uses of Spectroscope.                                         |                                                                        |
|        |                                    | Day 3 | Hour 1 | Introduction: Hydrostatic<br>Balance                          |                                                                        |
|        |                                    |       | Hour 2 | What is specific gravity?                                     |                                                                        |
|        |                                    |       | Hour 3 | Calculate S.G of the<br>gemstone with the help of<br>formula. |                                                                        |
|        |                                    |       | Hour 4 | Weight: Unit of weight<br>Carat/cents or points.              |                                                                        |
|        |                                    | Day 4 | Hour 1 | Emerald                                                       |                                                                        |

|        |                                                            |       |        |               |                                                                |
|--------|------------------------------------------------------------|-------|--------|---------------|----------------------------------------------------------------|
|        |                                                            |       | Hour 2 | Ruby          |                                                                |
|        |                                                            |       | Hour 3 | Sapphire      |                                                                |
|        |                                                            |       | Hour 4 | Aquamarine    |                                                                |
|        |                                                            | Day 5 | Hour 1 | Amethyst      |                                                                |
|        |                                                            |       | Hour 2 | Spinel        |                                                                |
|        |                                                            |       | Hour 3 | Garnet        |                                                                |
|        |                                                            |       | Hour 4 | Tourmaline    |                                                                |
| Week 5 | Identification of Cut Gemstones and Gemological Microscope | Day1  | Hour 1 | Pearl (Beads) | <b>•Task 5</b><br><br><u>Details may be seen at Annexure-I</u> |
|        |                                                            |       | Hour 2 | Coral (Beads) |                                                                |
|        |                                                            |       | Hour 3 | Agate         |                                                                |
|        |                                                            |       | Hour 4 | Turquoise     |                                                                |
|        |                                                            | Day 2 | Hour 1 | Lapis Lazuli  |                                                                |
|        |                                                            |       | Hour 2 | Quartz        |                                                                |
|        |                                                            |       | Hour 3 | Citrine       |                                                                |
|        |                                                            |       | Hour 4 | Spodumene     |                                                                |
|        |                                                            | Day 3 | Hour 1 | Period        |                                                                |
|        |                                                            |       |        |               |                                                                |

|        |                                 |        |                                          |                                                       |  |        |
|--------|---------------------------------|--------|------------------------------------------|-------------------------------------------------------|--|--------|
|        |                                 |        | Hour 2                                   | Topaz                                                 |  |        |
|        |                                 |        | Hour 3                                   | Fluorite                                              |  |        |
|        |                                 |        | Hour 4                                   | Calcite                                               |  |        |
|        |                                 | Day 4  | Hour 1                                   | Introduction and construction of Microscope           |  |        |
|        |                                 |        | Hour 2                                   | Types of microscopes.                                 |  |        |
|        |                                 |        | Hour 3                                   | Uses of Microscopes                                   |  |        |
|        |                                 |        | Hour 4                                   | Uses of Microscopes.                                  |  |        |
|        |                                 | Day 5  | Hour 1                                   | Inclusion of natural gemstone                         |  |        |
|        |                                 |        | Hour 2                                   | Inclusion of natural gemstone                         |  |        |
|        |                                 |        | Hour 3                                   | Inclusion of natural gemstone                         |  |        |
|        |                                 |        | Hour 4                                   | Inclusion of natural gemstone                         |  |        |
|        |                                 | Week 6 | Identification of Gemstone & Field visit | Day1                                                  |  | Hour 1 |
| Hour 2 | Inclusion of synthetic gemstone |        |                                          |                                                       |  |        |
| Hour 3 | Inclusion of synthetic gemstone |        |                                          |                                                       |  |        |
| Hour 4 | Inclusion of synthetic gemstone |        |                                          |                                                       |  |        |
| Day 2  | Hour 1                          |        |                                          | Identification of different gemstone with the help of |  |        |
|        |                                 |        |                                          |                                                       |  |        |

|  |  |       |        |                                                                               |  |
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|  |  |       |        | Gemological instruments                                                       |  |
|  |  |       | Hour 2 | Identification of different gemstone with the help of Gemological instruments |  |
|  |  |       | Hour 3 | Identification of different gemstone with the help of Gemological instruments |  |
|  |  |       | Hour 4 | Identification of different gemstone with the help of Gemological instruments |  |
|  |  | Day 3 | Hour 1 | Identification of different gemstone with the help of Gemological instruments |  |
|  |  |       | Hour 2 | Identification of different gemstone with the help of Gemological instruments |  |
|  |  |       | Hour 3 | Identification of different gemstone with the help of Gemological instruments |  |
|  |  |       | Hour 4 | Identification of different gemstone with the help of Gemological instruments |  |
|  |  | Day 4 | Hour 1 | Understanding Gemstone Market                                                 |  |
|  |  |       | Hour 2 | Understanding Gemstone Market                                                 |  |
|  |  |       | Hour 3 | Understanding Gemstone Market                                                 |  |
|  |  |       | Hour 4 | Understanding Gemstone Market                                                 |  |
|  |  | Day 5 | Hour 1 | Field visit / Industry visit                                                  |  |
|  |  |       | Hour 2 | Field visit / Industry visit                                                  |  |
|  |  |       | Hour 3 | Field visit / Industry visit                                                  |  |
|  |  |       | Hour 4 | Field visit / Industry visit                                                  |  |

|        |                                                                 |       |        |                                                           |                                                                 |
|--------|-----------------------------------------------------------------|-------|--------|-----------------------------------------------------------|-----------------------------------------------------------------|
| Week 7 | Introduction of Gemstone Cutting Machinery & Making of Cabochon | Day1  | Hour 1 | Introduction of gemstone cutting machinery                | <p>• Task 7</p> <p><u>Details may be seen at Annexure-I</u></p> |
|        |                                                                 |       | Hour 2 | Uses of cutting machinery                                 |                                                                 |
|        |                                                                 |       | Hour 3 | Introduction & uses of gemstone cutting tools             |                                                                 |
|        |                                                                 |       | Hour 4 | Safety precaution                                         |                                                                 |
|        |                                                                 | Day 2 | Hour 1 | Orientation session for making of round shape cabochon    |                                                                 |
|        |                                                                 |       | Hour 2 | Outlining & Trimming (Round shape cabochon)               |                                                                 |
|        |                                                                 |       | Hour 3 | Preforming & Pre-polishing (Round shape cabochon)         |                                                                 |
|        |                                                                 |       | Hour 4 | Polishing (Round shape cabochon)                          |                                                                 |
|        |                                                                 | Day 3 | Hour 1 | Orientation session for making of oval shape cabochon     |                                                                 |
|        |                                                                 |       | Hour 2 | Outlining & Trimming (Oval shape cabochon)                |                                                                 |
|        |                                                                 |       | Hour 3 | Preforming & Pre-polishing (Oval shape cabochon)          |                                                                 |
|        |                                                                 |       | Hour 4 | Polishing (Oval shape cabochon)                           |                                                                 |
|        |                                                                 | Day 4 | Hour 1 | Orientation session for making of Marquise shape cabochon |                                                                 |
|        |                                                                 |       | Hour 2 | Outlining & Trimming (Marquise shape cabochon)            |                                                                 |

|  |  |       |        |                                                                      |  |
|--|--|-------|--------|----------------------------------------------------------------------|--|
|  |  |       | Hour 3 | Preforming & Pre-polishing<br>(Marquise shape cabochon)              |  |
|  |  |       | Hour 4 | Polishing<br>(Marquise shape cabochon)                               |  |
|  |  | Day 5 | Hour 1 | Orientation session for<br>making of gemstone Pear<br>shape cabochon |  |
|  |  |       | Hour 2 | Outlining & Trimming<br>(Pear shape cabochon)                        |  |
|  |  |       | Hour 3 | Preforming & Pre-polishing<br>(Pear shape cabochon)                  |  |
|  |  |       | Hour 4 | Polishing<br>(Pear shape cabochon)                                   |  |

|        |                                               |       |        |                                                  |                                                                 |
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| Week 8 | Making of<br>different article<br>of gemstone | Day1  | Hour 1 | Orientation session for<br>making of Heart shape | •Task 8<br><br><i>Details may<br/>be seen at<br/>Annexure-I</i> |
|        |                                               |       | Hour 2 | Outlining & Trimming<br>(Heart shape)            |                                                                 |
|        |                                               |       | Hour 3 | Preforming<br>(Heart shape)                      |                                                                 |
|        |                                               |       | Hour 4 | Preforming<br>(Heart shape)                      |                                                                 |
|        |                                               | Day 2 | Hour 1 | Pre-polishing<br>(Heart shape)                   |                                                                 |
|        |                                               |       | Hour 2 | Pre-polishing<br>(Heart shape)                   |                                                                 |
|        |                                               |       | Hour 3 | Polishing<br>(Heart shape)                       |                                                                 |
|        |                                               |       | Hour 4 | Polishing<br>(Heart shape)                       |                                                                 |

|        |                                                                           |       |        |                                           |                                                                |
|--------|---------------------------------------------------------------------------|-------|--------|-------------------------------------------|----------------------------------------------------------------|
|        |                                                                           | Day 3 | Hour 1 | Orientation session for making of pendent |                                                                |
|        |                                                                           |       | Hour 2 | Trimming for pendent                      |                                                                |
|        |                                                                           |       | Hour 3 | Preforming for pendent                    |                                                                |
|        |                                                                           |       | Hour 4 | Preforming for pendent                    |                                                                |
|        |                                                                           | Day 4 | Hour 1 | Pre-polishing of pendent                  |                                                                |
|        |                                                                           |       | Hour 2 | Polishing of pendent                      |                                                                |
|        |                                                                           |       | Hour 3 | Orientation session for making of leaf    |                                                                |
|        |                                                                           |       | Hour 4 | Outlining for making of leaf              |                                                                |
|        |                                                                           | Day 5 | Hour 1 | Trimming for making of leaf               |                                                                |
|        |                                                                           |       | Hour 2 | Preforming for making of leaf             |                                                                |
|        |                                                                           |       | Hour 3 | Pre-polishing of leaf                     |                                                                |
|        |                                                                           |       | Hour 4 | Polishing of leaf                         |                                                                |
| Week 9 | Gemstone engraving carving<br><br>& Job Search/<br>Entrepreneurial skills | Day1  | Hour 1 | Orientation session of engraving carving  | <b>•Task 9</b><br><br><u>Details may be seen at Annexure-I</u> |
|        |                                                                           |       | Hour 2 | Engraving of leaf                         |                                                                |
|        |                                                                           |       | Hour 3 | Engraving of leaf                         |                                                                |
|        |                                                                           |       | Hour 4 | Engraving of leaf                         |                                                                |
|        |                                                                           |       |        |                                           |                                                                |



|  |  |              |               |                                         |
|--|--|--------------|---------------|-----------------------------------------|
|  |  | <b>Day 2</b> | <b>Hour 1</b> | Pre-polishing of engraving leaf         |
|  |  |              | <b>Hour 2</b> | Pre-polishing of engraving leaf         |
|  |  |              | <b>Hour 3</b> | Polishing of engraving leaf             |
|  |  |              | <b>Hour 4</b> | Polishing of engraving leaf             |
|  |  | <b>Day 3</b> | <b>Hour 1</b> | Orientation session for making of Fish  |
|  |  |              | <b>Hour 2</b> | Outlining & Trimming for making of Fish |
|  |  |              | <b>Hour 3</b> | Preforming of Fish                      |
|  |  |              | <b>Hour 4</b> | Preforming of Fish                      |
|  |  | <b>Day 4</b> | <b>Hour 1</b> | Engraving of Fish                       |
|  |  |              | <b>Hour 2</b> | Engraving of Fish                       |
|  |  |              | <b>Hour 3</b> | Pre-Polishing of Fish                   |
|  |  |              | <b>Hour 4</b> | Polishing of Fish                       |
|  |  | <b>Day 5</b> | <b>Hour 1</b> | Job Search/<br>Entrepreneurial skills   |
|  |  |              | <b>Hour 2</b> | Job Search/<br>Entrepreneurial skills   |
|  |  |              | <b>Hour 3</b> | Job Search/<br>Entrepreneurial skills   |
|  |  |              | <b>Hour 4</b> | Job Search/<br>Entrepreneurial skills   |

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|------------|------------------------------------------|-------|--------|-------------------------------------------------|-----------------------------------------------------------------|
| Week<br>10 | Making of<br>Bangles &<br>Gemstone Rings | Day1  | Hour 1 | Orientation session for making of Bangle        | <b>•Task 10</b><br><br><u>Details may be seen at Annexure-I</u> |
|            |                                          |       | Hour 2 | Outlining & Trimming for Bangle                 |                                                                 |
|            |                                          |       | Hour 3 | Preforming of Bangle                            |                                                                 |
|            |                                          |       | Hour 4 | Preforming of Bangle                            |                                                                 |
|            |                                          | Day 2 | Hour 1 | Preforming of Bangle                            |                                                                 |
|            |                                          |       | Hour 2 | Preforming of Bangle                            |                                                                 |
|            |                                          |       | Hour 3 | Preforming of Bangle                            |                                                                 |
|            |                                          |       | Hour 4 | Pre-polishing of Bangle                         |                                                                 |
|            |                                          | Day 3 | Hour 1 | Pre-polishing of Bangle                         |                                                                 |
|            |                                          |       | Hour 2 | Polishing of Bangle                             |                                                                 |
|            |                                          |       | Hour 3 | Polishing of Bangle                             |                                                                 |
|            |                                          |       | Hour 4 | Orientation session for making of gemstone ring |                                                                 |
|            |                                          | Day 4 | Hour 1 | Outlining & Trimming for gemstone ring          |                                                                 |
|            |                                          |       | Hour 2 | Preforming for making of gemstone ring          |                                                                 |
|            |                                          |       | Hour 3 | Preforming for making of gemstone ring          |                                                                 |
|            |                                          |       | Hour 4 | Preforming for making of gemstone ring          |                                                                 |

|         |                |       |        |                                           |                                                                       |
|---------|----------------|-------|--------|-------------------------------------------|-----------------------------------------------------------------------|
|         |                | Day 5 | Hour 1 | Pre-polishing for making of gemstone Ring |                                                                       |
|         |                |       | Hour 2 | Pre-polishing for making of gemstone Ring |                                                                       |
|         |                |       | Hour 3 | Polishing of gemstone Ring                |                                                                       |
|         |                |       | Hour 4 | Polishing of gemstone Ring                |                                                                       |
| Week 11 | Making of Frog | Day1  | Hour 1 | Orientation session for making of Frog    | <p>• <b>Task 11</b><br/> <u>Details may be seen at Annexure-I</u></p> |
|         |                |       | Hour 2 | Sketching & Trimming for making of Frog   |                                                                       |
|         |                |       | Hour 3 | Preforming for making of Frog             |                                                                       |
|         |                |       | Hour 4 | Preforming for making of Frog             |                                                                       |
|         |                | Day 2 | Hour 1 | Preforming for making of Frog             |                                                                       |
|         |                |       | Hour 2 | Preforming for making of Frog             |                                                                       |
|         |                |       | Hour 3 | Preforming for making of Frog             |                                                                       |
|         |                |       | Hour 4 | Preforming for making of Frog             |                                                                       |
|         |                | Day 3 | Hour 1 | Preforming for making of Frog             |                                                                       |
|         |                |       | Hour 2 | Preforming for making of Frog             |                                                                       |
|         |                |       | Hour 3 | Preforming for making of Frog             |                                                                       |
|         |                |       | Hour 4 | Preforming for making of Frog             |                                                                       |

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|---------|------------------------------------------------------------------|-------|--------|-----------------------------------------|-----------------------------------------------------------------|
|         |                                                                  | Day 4 | Hour 1 | Pre-polishing of Frog                   |                                                                 |
|         |                                                                  |       | Hour 2 | Pre-polishing of Frog                   |                                                                 |
|         |                                                                  |       | Hour 3 | Pre-polishing of Frog                   |                                                                 |
|         |                                                                  |       | Hour 4 | Pre-polishing of Frog                   |                                                                 |
|         |                                                                  | Day 5 | Hour 1 | Polishing of Frog                       |                                                                 |
|         |                                                                  |       | Hour 2 | Polishing of Frog                       |                                                                 |
|         |                                                                  |       | Hour 3 | Polishing of Frog                       |                                                                 |
|         |                                                                  |       | Hour 4 | Polishing of Frog                       |                                                                 |
| Week 12 | Making of Birds , understanding of gemstone market & field visit | Day1  | Hour 1 | Orientation session for making of bird  | <b>•Task 12</b><br><br><u>Details may be seen at Annexure-I</u> |
|         |                                                                  |       | Hour 2 | Sketching & Trimming for making of bird |                                                                 |
|         |                                                                  |       | Hour 3 | Preforming for making of bird           |                                                                 |
|         |                                                                  |       | Hour 4 | Preforming for making of bird           |                                                                 |
|         |                                                                  | Day 2 | Hour 1 | Preforming for making of bird           |                                                                 |
|         |                                                                  |       | Hour 2 | Preforming for making of bird           |                                                                 |
|         |                                                                  |       | Hour 3 | Preforming for making of bird           |                                                                 |
|         |                                                                  |       | Hour 4 | Preforming for making of bird           |                                                                 |

|         |                                                                 |       |        |                                            |                                                                 |
|---------|-----------------------------------------------------------------|-------|--------|--------------------------------------------|-----------------------------------------------------------------|
|         |                                                                 | Day 3 | Hour 1 | Pre-polishing of bird                      |                                                                 |
|         |                                                                 |       | Hour 2 | Pre-polishing of bird                      |                                                                 |
|         |                                                                 |       | Hour 3 | Polishing of bird                          |                                                                 |
|         |                                                                 |       | Hour 4 | Polishing of bird                          |                                                                 |
|         |                                                                 | Day 4 | Hour 1 | Understanding Gemstone Market              |                                                                 |
|         |                                                                 |       | Hour 2 | Understanding Gemstone Market              |                                                                 |
|         |                                                                 |       | Hour 3 | Understanding Gemstone Market              |                                                                 |
|         |                                                                 |       | Hour 4 | Understanding Gemstone Market              |                                                                 |
|         |                                                                 | Day 5 | Hour 1 | Field visit / Industry visit               |                                                                 |
|         |                                                                 |       | Hour 2 | Field visit / Industry visit               |                                                                 |
|         |                                                                 |       | Hour 3 | Field visit / Industry visit               |                                                                 |
|         |                                                                 |       | Hour 4 | Field visit / Industry visit               |                                                                 |
| Week 13 | Introduction of Faceting Machinery, Tools & Round Brilliant Cut | Day1  | Hour 1 | Introduction of Faceting Unit              | <b>•Task 13</b><br><br><u>Details may be seen at Annexure-I</u> |
|         |                                                                 |       | Hour 2 | Introduction of Facetor & Types of Facetor |                                                                 |
|         |                                                                 |       | Hour 3 | Introduction of Faceting Tools             |                                                                 |
|         |                                                                 |       | Hour 4 | Safety Precaution                          |                                                                 |

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|  |  | <b>Day 2</b> | <b>Hour 1</b> | Orientation session for making of performing of faceted gemstone |  |
|  |  |              | <b>Hour 2</b> | Outlining & Trimming of Gemstone                                 |  |
|  |  |              | <b>Hour 3</b> | Preforming                                                       |  |
|  |  |              | <b>Hour 4</b> | Preforming                                                       |  |
|  |  | <b>Day 3</b> | <b>Hour 1</b> | Preforming                                                       |  |
|  |  |              | <b>Hour 2</b> | Preforming                                                       |  |
|  |  |              | <b>Hour 3</b> | Preforming                                                       |  |
|  |  |              | <b>Hour 4</b> | Preforming                                                       |  |
|  |  | <b>Day 4</b> | <b>Hour 1</b> | Doping                                                           |  |
|  |  |              | <b>Hour 2</b> | Doping                                                           |  |
|  |  |              | <b>Hour 3</b> | Doping                                                           |  |
|  |  |              | <b>Hour 4</b> | Doping                                                           |  |
|  |  | <b>Day 5</b> | <b>Hour 1</b> | Motivational lecture                                             |  |
|  |  |              | <b>Hour 2</b> | Motivational lecture                                             |  |
|  |  |              | <b>Hour 3</b> | Motivational lecture                                             |  |

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|------------|------------------------|-------|--------|-----------------------------------------------|-------------------------------------------------------------------------|
|            |                        |       | Hour 4 | Motivational lecture                          |                                                                         |
| Week<br>14 | Round Brilliant<br>Cut | Day1  | Hour 1 | Orientation session of<br>Round Brilliant cut | <b>•Task 14</b><br><br><u>Details may<br/>be seen at<br/>Annexure-I</u> |
|            |                        |       | Hour 2 | Outlining & Trimming                          |                                                                         |
|            |                        |       | Hour 3 | Preforming                                    |                                                                         |
|            |                        |       | Hour 4 | Doping                                        |                                                                         |
|            |                        | Day 2 | Hour 1 | Making of Crown                               |                                                                         |
|            |                        |       | Hour 2 | Making of Crown                               |                                                                         |
|            |                        |       | Hour 3 | Making of Crown                               |                                                                         |
|            |                        |       | Hour 4 | Pre-polishing of crown                        |                                                                         |
|            |                        | Day 3 | Hour 1 | Pre-polishing of crown                        |                                                                         |
|            |                        |       | Hour 2 | Polishing of crown                            |                                                                         |
|            |                        |       | Hour 3 | Polishing of crown                            |                                                                         |
|            |                        |       | Hour 4 | Re-doping of gemstone for<br>pavilion         |                                                                         |
|            |                        | Day 4 | Hour 1 | Making of pavilion                            |                                                                         |
|            |                        |       | Hour 2 | Making of pavilion                            |                                                                         |
|            |                        |       | Hour 3 | Making of pavilion                            |                                                                         |

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|         |          | Day 5 | Hour 4 | Making of pavilion              |                                                                 |
|         |          |       | Hour 1 | Pre-polishing of pavilion       |                                                                 |
|         |          |       | Hour 2 | Pre-polishing of pavilion       |                                                                 |
|         |          |       | Hour 3 | Polishing of pavilion           |                                                                 |
|         |          |       | Hour 4 | Polishing of pavilion           |                                                                 |
| Week 15 | Step cut | Day1  | Hour 1 | Orientation session of Step cut | <b>•Task 15</b><br><br><u>Details may be seen at Annexure-I</u> |
|         |          |       | Hour 2 | Outlining & Trimming            |                                                                 |
|         |          |       | Hour 3 | Preforming                      |                                                                 |
|         |          |       | Hour 4 | Doping                          |                                                                 |
|         |          | Day 2 | Hour 1 | Making of Crown                 |                                                                 |
|         |          |       | Hour 2 | Making of Crown                 |                                                                 |
|         |          |       | Hour 3 | Making of Crown                 |                                                                 |
|         |          |       | Hour 4 | Pre-polishing of crown          |                                                                 |
|         |          | Day 3 | Hour 1 | Pre-polishing of crown          |                                                                 |
|         |          |       | Hour 2 | Polishing of crown              |                                                                 |
|         |          |       | Hour 3 | Polishing of crown              |                                                                 |



|  |  |       |        |                                    |  |
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|  |  |       | Hour 4 | Re-doping of gemstone for pavilion |  |
|  |  | Day 4 | Hour 1 | Making of pavilion                 |  |
|  |  |       | Hour 2 | Making of pavilion                 |  |
|  |  |       | Hour 3 | Making of pavilion                 |  |
|  |  |       | Hour 4 | Making of pavilion                 |  |
|  |  | Day 5 | Hour 1 | Pre-polishing of pavilion          |  |
|  |  |       | Hour 2 | Pre-polishing of pavilion          |  |
|  |  |       | Hour 3 | Polishing of pavilion              |  |
|  |  |       | Hour 4 | Polishing of pavilion              |  |

|         |                        |       |        |                                               |                                                          |
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| Week 16 | Modified Brilliant Cut | Day1  | Hour 1 | Orientation session of Modified Brilliant cut | •Task 16<br><br><u>Details may be seen at Annexure-I</u> |
|         |                        |       | Hour 2 | Outlining & Trimming                          |                                                          |
|         |                        |       | Hour 3 | Preforming                                    |                                                          |
|         |                        |       | Hour 4 | Doping                                        |                                                          |
|         |                        | Day 2 | Hour 1 | Making of Crown                               |                                                          |
|         |                        |       | Hour 2 | Making of Crown                               |                                                          |
|         |                        |       | Hour 3 | Making of Crown                               |                                                          |

|  |  |       |        |                                        |                                                                        |
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|  |  |       | Hour 4 | Pre-polishing of crown                 |                                                                        |
|  |  |       | Hour 1 | Pre-polishing of crown                 |                                                                        |
|  |  |       | Hour 2 | Polishing of crown                     |                                                                        |
|  |  |       | Hour 3 | Polishing of crown                     |                                                                        |
|  |  | Day 3 | Hour 4 | Re-doping of gemstone for pavilion     |                                                                        |
|  |  |       | Hour 1 | Making of pavilion                     |                                                                        |
|  |  |       | Hour 2 | Making of pavilion                     |                                                                        |
|  |  |       | Hour 3 | Making of pavilion                     |                                                                        |
|  |  | Day 4 | Hour 4 | Making of pavilion                     |                                                                        |
|  |  |       | Hour 1 | Pre-polishing of pavilion              |                                                                        |
|  |  |       | Hour 2 | Pre-polishing of pavilion              |                                                                        |
|  |  |       | Hour 3 | Polishing of pavilion                  |                                                                        |
|  |  | Day 5 | Hour 4 | Polishing of pavilion                  |                                                                        |
|  |  |       | Hour 1 | Orientation session of French star cut | <b>•Task 17</b><br><br><i><u>Details may be seen at Annexure-I</u></i> |
|  |  |       | Hour 2 | Outlining & Trimming                   |                                                                        |
|  |  |       | Hour 3 | Preforming                             |                                                                        |

|  |  |       |        |                                    |  |
|--|--|-------|--------|------------------------------------|--|
|  |  |       | Hour 4 | Doping                             |  |
|  |  | Day 2 | Hour 1 | Making of Crown                    |  |
|  |  |       | Hour 2 | Making of Crown                    |  |
|  |  |       | Hour 3 | Making of Crown                    |  |
|  |  |       | Hour 4 | Pre-polishing of crown             |  |
|  |  | Day 3 | Hour 1 | Pre-polishing of crown             |  |
|  |  |       | Hour 2 | Polishing of crown                 |  |
|  |  |       | Hour 3 | Polishing of crown                 |  |
|  |  |       | Hour 4 | Re-doping of gemstone for pavilion |  |
|  |  | Day 4 | Hour 1 | Making of pavilion                 |  |
|  |  |       | Hour 2 | Making of pavilion                 |  |
|  |  |       | Hour 3 | Making of pavilion                 |  |
|  |  |       | Hour 4 | Making of pavilion                 |  |
|  |  | Day 5 | Hour 1 | Pre-polishing of pavilion          |  |
|  |  |       | Hour 2 | Pre-polishing of pavilion          |  |
|  |  |       | Hour 3 | Polishing of pavilion              |  |

|            |          |       |        |                                    |                                                                        |
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|            |          |       | Hour 4 | Polishing of pavilion              |                                                                        |
| Week<br>18 | Oval cut | Day1  | Hour 1 | Orientation session of Oval cut    | <b>•Task 18</b><br><br><i><u>Details may be seen at Annexure-I</u></i> |
|            |          |       | Hour 2 | Outlining & Trimming               |                                                                        |
|            |          |       | Hour 3 | Preforming                         |                                                                        |
|            |          |       | Hour 4 | Doping                             |                                                                        |
|            |          | Day 2 | Hour 1 | Making of Crown                    |                                                                        |
|            |          |       | Hour 2 | Making of Crown                    |                                                                        |
|            |          |       | Hour 3 | Making of Crown                    |                                                                        |
|            |          |       | Hour 4 | Pre-polishing of crown             |                                                                        |
|            |          | Day 3 | Hour 1 | Pre-polishing of crown             |                                                                        |
|            |          |       | Hour 2 | Polishing of crown                 |                                                                        |
|            |          |       | Hour 3 | Polishing of crown                 |                                                                        |
|            |          |       | Hour 4 | Re-doping of gemstone for pavilion |                                                                        |
|            |          | Day 4 | Hour 1 | Making of pavilion                 |                                                                        |
|            |          |       | Hour 2 | Making of pavilion                 |                                                                        |
|            |          |       | Hour 3 | Making of pavilion                 |                                                                        |

|         |                |       |        |                                       |                                                                 |
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|         |                |       | Hour 4 | Making of pavilion                    |                                                                 |
|         |                | Day 5 | Hour 1 | Pre-polishing of pavilion             |                                                                 |
|         |                |       | Hour 2 | Pre-polishing of pavilion             |                                                                 |
|         |                |       | Hour 3 | Polishing of pavilion                 |                                                                 |
|         |                |       | Hour 4 | Polishing of pavilion                 |                                                                 |
| Week 19 | Portuguese cut | Day1  | Hour 1 | Orientation session of Portuguese cut | <p>•Task 19</p> <p><u>Details may be seen at Annexure-I</u></p> |
|         |                |       | Hour 2 | Outlining & Trimming                  |                                                                 |
|         |                |       | Hour 3 | Preforming                            |                                                                 |
|         |                |       | Hour 4 | Doping                                |                                                                 |
|         |                | Day 2 | Hour 1 | Making of Crown                       |                                                                 |
|         |                |       | Hour 2 | Making of Crown                       |                                                                 |
|         |                |       | Hour 3 | Making of Crown                       |                                                                 |
|         |                |       | Hour 4 | Pre-polishing of crown                |                                                                 |
|         |                | Day 3 | Hour 1 | Pre-polishing of crown                |                                                                 |
|         |                |       | Hour 2 | Polishing of crown                    |                                                                 |
|         |                |       | Hour 3 | Polishing of crown                    |                                                                 |

|         |             |       |        |                                    |                                                                        |
|---------|-------------|-------|--------|------------------------------------|------------------------------------------------------------------------|
|         |             |       | Hour 4 | Re-doping of gemstone for pavilion |                                                                        |
|         |             | Day 4 | Hour 1 | Making of pavilion                 |                                                                        |
|         |             |       | Hour 2 | Making of pavilion                 |                                                                        |
|         |             |       | Hour 3 | Making of pavilion                 |                                                                        |
|         |             |       | Hour 4 | Making of pavilion                 |                                                                        |
|         |             | Day 5 | Hour 1 | Pre-polishing of pavilion          |                                                                        |
|         |             |       | Hour 2 | Pre-polishing of pavilion          |                                                                        |
|         |             |       | Hour 3 | Polishing of pavilion              |                                                                        |
|         |             |       | Hour 4 | Polishing of pavilion              |                                                                        |
| Week 20 | Asscher Cut | Day1  | Hour 1 | Orientation session of Asscher cut | <b>•Task 20</b><br><br><i><u>Details may be seen at Annexure-I</u></i> |
|         |             |       | Hour 2 | Outlining & Trimming               |                                                                        |
|         |             |       | Hour 3 | Preforming                         |                                                                        |
|         |             |       | Hour 4 | Doping                             |                                                                        |
|         |             | Day 2 | Hour 1 | Making of Crown                    |                                                                        |
|         |             |       | Hour 2 | Making of Crown                    |                                                                        |
|         |             |       | Hour 3 | Making of Crown                    |                                                                        |
|         |             |       |        |                                    |                                                                        |

|         |             |       |        |                                    |                                                                        |
|---------|-------------|-------|--------|------------------------------------|------------------------------------------------------------------------|
|         |             |       | Hour 4 | Pre-polishing of crown             |                                                                        |
|         |             |       | Day 3  | Hour 1                             |                                                                        |
|         |             |       |        | Hour 2                             |                                                                        |
|         |             |       |        | Hour 3                             |                                                                        |
|         |             |       |        | Hour 4                             |                                                                        |
|         |             | Day 4 | Hour 1 | Making of pavilion                 |                                                                        |
|         |             |       | Hour 2 | Making of pavilion                 |                                                                        |
|         |             |       | Hour 3 | Making of pavilion                 |                                                                        |
|         |             |       | Hour 4 | Making of pavilion                 |                                                                        |
|         |             | Day 5 | Hour 1 | Pre-polishing of pavilion          |                                                                        |
|         |             |       | Hour 2 | Pre-polishing of pavilion          |                                                                        |
|         |             |       | Hour 3 | Polishing of pavilion              |                                                                        |
|         |             |       | Hour 4 | Polishing of pavilion              |                                                                        |
| Week 21 | Cushion cut | Day1  | Hour 1 | Orientation session of Cushion cut | <b>•Task 21</b><br><br><i><u>Details may be seen at Annexure-I</u></i> |
|         |             |       | Hour 2 | Outlining & Trimming               |                                                                        |
|         |             |       | Hour 3 | Preforming                         |                                                                        |

|  |  |       |        |                                    |  |
|--|--|-------|--------|------------------------------------|--|
|  |  |       | Hour 4 | Doping                             |  |
|  |  | Day 2 | Hour 1 | Making of Crown                    |  |
|  |  |       | Hour 2 | Making of Crown                    |  |
|  |  |       | Hour 3 | Making of Crown                    |  |
|  |  |       | Hour 4 | Pre-polishing of crown             |  |
|  |  | Day 3 | Hour 1 | Pre-polishing of crown             |  |
|  |  |       | Hour 2 | Polishing of crown                 |  |
|  |  |       | Hour 3 | Polishing of crown                 |  |
|  |  |       | Hour 4 | Re-doping of gemstone for pavilion |  |
|  |  | Day 4 | Hour 1 | Making of pavilion                 |  |
|  |  |       | Hour 2 | Making of pavilion                 |  |
|  |  |       | Hour 3 | Making of pavilion                 |  |
|  |  |       | Hour 4 | Making of pavilion                 |  |
|  |  | Day 5 | Hour 1 | Pre-polishing of pavilion          |  |
|  |  |       | Hour 2 | Pre-polishing of pavilion          |  |
|  |  |       | Hour 3 | Polishing of pavilion              |  |



|            |                                  |       |        |                                                  |                                                                                |
|------------|----------------------------------|-------|--------|--------------------------------------------------|--------------------------------------------------------------------------------|
|            |                                  |       | Hour 4 | Polishing of pavilion                            |                                                                                |
| Week<br>22 | Double Diamond<br>horizontal Cut | Day1  | Hour 1 | Orientation session of<br>Diamond Horizontal cut | <b>•Task 22</b><br><br><i><u>Details may<br/>be seen at<br/>Annexure-I</u></i> |
|            |                                  |       | Hour 2 | Outlining & Trimming                             |                                                                                |
|            |                                  |       | Hour 3 | Preforming                                       |                                                                                |
|            |                                  |       | Hour 4 | Doping                                           |                                                                                |
|            |                                  | Day 2 | Hour 1 | Making of Crown                                  |                                                                                |
|            |                                  |       | Hour 2 | Making of Crown                                  |                                                                                |
|            |                                  |       | Hour 3 | Making of Crown                                  |                                                                                |
|            |                                  |       | Hour 4 | Pre-polishing of crown                           |                                                                                |
|            |                                  | Day 3 | Hour 1 | Pre-polishing of crown                           |                                                                                |
|            |                                  |       | Hour 2 | Polishing of crown                               |                                                                                |
|            |                                  |       | Hour 3 | Polishing of crown                               |                                                                                |
|            |                                  |       | Hour 4 | Re-doping of gemstone for<br>pavilion            |                                                                                |
|            |                                  | Day 4 | Hour 1 | Making of pavilion                               |                                                                                |
|            |                                  |       | Hour 2 | Making of pavilion                               |                                                                                |
|            |                                  |       | Hour 3 | Making of pavilion                               |                                                                                |

|         |                             |       |        |                                             |                                                                 |
|---------|-----------------------------|-------|--------|---------------------------------------------|-----------------------------------------------------------------|
|         |                             |       | Hour 4 | Making of pavilion                          |                                                                 |
|         |                             | Day 5 | Hour 1 | Pre-polishing of pavilion                   |                                                                 |
|         |                             |       | Hour 2 | Pre-polishing of pavilion                   |                                                                 |
|         |                             |       | Hour 3 | Polishing of pavilion                       |                                                                 |
|         |                             |       | Hour 4 | Polishing of pavilion                       |                                                                 |
| Week 23 | Double Diamond vertical Cut | Day1  | Hour 1 | Orientation session of Diamond vertical cut | <p>•Task 23</p> <p><u>Details may be seen at Annexure-I</u></p> |
|         |                             |       | Hour 2 | Outlining & Trimming                        |                                                                 |
|         |                             |       | Hour 3 | Preforming                                  |                                                                 |
|         |                             |       | Hour 4 | Doping                                      |                                                                 |
|         |                             | Day 2 | Hour 1 | Making of Crown                             |                                                                 |
|         |                             |       | Hour 2 | Making of Crown                             |                                                                 |
|         |                             |       | Hour 3 | Making of Crown                             |                                                                 |
|         |                             |       | Hour 4 | Pre-polishing of crown                      |                                                                 |
|         |                             | Day 3 | Hour 1 | Pre-polishing of crown                      |                                                                 |
|         |                             |       | Hour 2 | Polishing of crown                          |                                                                 |
|         |                             |       | Hour 3 | Polishing of crown                          |                                                                 |

|  |  |       |        |                                    |  |
|--|--|-------|--------|------------------------------------|--|
|  |  |       | Hour 4 | Re-doping of gemstone for pavilion |  |
|  |  | Day 4 | Hour 1 | Making of pavilion                 |  |
|  |  |       | Hour 2 | Making of pavilion                 |  |
|  |  |       | Hour 3 | Making of pavilion                 |  |
|  |  |       | Hour 4 | Making of pavilion                 |  |
|  |  | Day 5 | Hour 1 | Pre-polishing of pavilion          |  |
|  |  |       | Hour 2 | Pre-polishing of pavilion          |  |
|  |  |       | Hour 3 | Polishing of pavilion              |  |
|  |  |       | Hour 4 | Polishing of pavilion              |  |

|         |                                                                                    |       |        |                               |                                                                               |
|---------|------------------------------------------------------------------------------------|-------|--------|-------------------------------|-------------------------------------------------------------------------------|
| Week 24 | Motivational lecture, understanding of gemstone market, Job search and field visit | Day1  | Hour 1 | Motivational lecture          | •Task 24<br><br><i>Details may be seen at Annexure-I</i><br><br>Final Project |
|         |                                                                                    |       | Hour 2 | Motivational lecture          |                                                                               |
|         |                                                                                    |       | Hour 3 | Motivational lecture          |                                                                               |
|         |                                                                                    |       | Hour 4 | Motivational lecture          |                                                                               |
|         |                                                                                    | Day 2 | Hour 1 | Understanding gemstone market |                                                                               |
|         |                                                                                    |       | Hour 2 | Understanding gemstone market |                                                                               |
|         |                                                                                    |       | Hour 3 | Understanding gemstone market |                                                                               |

|  |  |              |               |                                       |  |
|--|--|--------------|---------------|---------------------------------------|--|
|  |  |              | <b>Hour 4</b> | Understanding gemstone market         |  |
|  |  | <b>Day 3</b> | <b>Hour 1</b> | Job Search/<br>Entrepreneurial skills |  |
|  |  |              | <b>Hour 2</b> | Job Search/<br>Entrepreneurial skills |  |
|  |  |              | <b>Hour 3</b> | Job Search/<br>Entrepreneurial skills |  |
|  |  |              | <b>Hour 4</b> | Job Search/<br>Entrepreneurial skills |  |
|  |  | <b>Day 4</b> | <b>Hour 1</b> | Field visit / industry visit          |  |
|  |  |              | <b>Hour 2</b> | Field visit / industry visit          |  |
|  |  |              | <b>Hour 3</b> | Field visit / industry visit          |  |
|  |  |              | <b>Hour 4</b> | Field visit / industry visit          |  |
|  |  | <b>Day 5</b> | <b>Hour 1</b> | Field visit / industry visit          |  |
|  |  |              | <b>Hour 2</b> | Field visit / industry visit          |  |
|  |  |              | <b>Hour 3</b> | Field visit / industry visit          |  |
|  |  |              | <b>Hour 4</b> | Field visit / industry visit          |  |

### Tasks for Certificate in Gemstone cutting / Polishing & Carving

| Task No. | Task                                                                                                | Description                                                                                                                                               | Week          |
|----------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 1.       | <b>Introduction to Gemology , Basic Terminologies and Motivational lecture</b>                      | Students will learn about the Gemology and learn the basic knowledge of gemstones and motivated lectures                                                  | <b>Week 1</b> |
| 2.       | <b>Introduction to Rough Natural Gemstone</b>                                                       | Student will be able to identify the natural gemstone by their physical properties                                                                        | <b>Week 2</b> |
| 3.       | <b>Introduction to Gemstone Instruments &amp; their uses and Job Search/ Entrepreneurial skills</b> | Trainees will be familiar about the gemological instruments and able to use the gemological instruments and entrepreneurial skills                        | <b>Week 3</b> |
| 4.       | <b>Identification of Cut gemstones</b>                                                              | Knowledge about cut gemstone e.g; Ruby, Emerald, Sapphire, Topaz etc.                                                                                     | <b>Week 4</b> |
| 5.       | <b>Identification of Cut Gemstones and Gemological Microscope</b>                                   | Knowledge about cut gemstone and introduction & construction of gemological microscope and uses of the gemological microscope                             | <b>Week 5</b> |
| 6.       | <b>Identification of Gemstone &amp; Field visit</b>                                                 | In this week students will identify different gemstone with the help of gemological instruments and will visit to gemstone market for industrial linkages | <b>Week 6</b> |
| 7.       | <b>Introduction of Gemstone Cutting Machinery &amp; Making of Cabochon</b>                          | Students will be familiar with Gemstone cutting machinery and will learn making of different types of cabochon                                            | <b>Week 7</b> |
| 8.       | <b>Making of different article of gemstone</b>                                                      | Students will be able to make different types of jewelry articles e.g. heart shape, pendent, leaf etc.                                                    | <b>Week 8</b> |
| 9.       | <b>Gemstone engraving carving &amp; Job search / Entrepreneurial skills</b>                         | Skill of engraving in different gemstone articles and knowledge about job search / entrepreneurial skill                                                  | <b>Week 9</b> |
| 10.      | <b>Making of Bangles &amp; Gemstone Rings</b>                                                       | In this week students will be able to make gemstone bangles and rings                                                                                     | <b>Week10</b> |
| 11.      | <b>Making of Frog</b>                                                                               | Skill of making of frog                                                                                                                                   | <b>Week11</b> |

|     |                                                                                           |                                                                                                                      |               |
|-----|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------|
| 12. | <b>Making of Birds , understanding of gemstone market &amp; field visit</b>               | Skill about making of birds, understanding of gemstone market and field visits                                       | <b>Week12</b> |
| 13. | <b>Introduction of Faceting Machinery, Tools &amp; performing</b>                         | Knowledge about gemstone faceting machinery, tools and method of performing of gemstone for making of different cuts | <b>Week13</b> |
| 14. | <b>Round Brilliant Cut</b>                                                                | Students will gain the skill of making round brilliant cut                                                           | <b>Week14</b> |
| 15. | <b>Step cut</b>                                                                           | Students will gain the skill of making step cut                                                                      | <b>Week15</b> |
| 16. | <b>Modified Brilliant Cut</b>                                                             | Students will gain the skill of making Modified Brilliant Cut                                                        | <b>Week16</b> |
| 17. | <b>French Star cut</b>                                                                    | Students will gain the skill of making French star cut                                                               | <b>Week17</b> |
| 18. | <b>Oval cut</b>                                                                           | Students will gain the skill of making oval cut                                                                      | <b>Week18</b> |
| 19. | <b>Portuguese cut</b>                                                                     | Students will gain the skill of making Portuguese cut                                                                | <b>Week19</b> |
| 20. | <b>Asscher Cut</b>                                                                        | Students will gain the skill of making Asscher cut                                                                   | <b>Week20</b> |
| 21. | <b>Cushion cut</b>                                                                        | Students will gain the skill of making cushion cut                                                                   | <b>Week21</b> |
| 22. | <b>Double Diamond horizontal Cut</b>                                                      | Students will gain the skill of making Double Diamond horizontal cut                                                 | <b>Week22</b> |
| 23. | <b>Double Diamond vertical Cut</b>                                                        | Students will gain the skill of making Double diamond vertical cut                                                   | <b>Week23</b> |
| 24. | <b>Motivational lecture, understanding of gemstone market, Job search and field visit</b> | Student will visit the gemstone market and will be able to start the gemstone business                               | <b>Week24</b> |

**Motivational Lectures**  
**Gemstone Cutting Polishing & Carving**

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[How to Use the Polariscope - YouTube](#)

[How to Use the Polariscope - YouTube](#)

[How To Identify a Gemstone using a refractometer - YouTube](#)

[Geology 101: Natural Processes that Form Colored Gemstones | GIA Knowledge Sessions Webinar Series - YouTube](#)

## **Workplace/Institute Ethics Guide**

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Work ethic is a standard of conduct and values for job performance. The modern definition of what constitutes good work ethics often varies. Different businesses have different expectations. Work ethic is a belief that hard work and diligence have a moral benefit and an inherent ability, virtue, or value to strengthen character and individual abilities. It is a set of values-centered on the importance of work and manifested by determination or desire to work hard.

The following ten work ethics are defined as essential for student success:

**1. Attendance:**

Be at work every day possible, plan your absences don't abuse leave time. Be punctual every day.

**2. Character:**

Honesty is the single most important factor having a direct bearing on the final success of an individual, corporation, or product. Complete assigned tasks correctly and promptly. Look to improve your skills.

**3. Team Work:**

The ability to get along with others including those you don't necessarily like. The ability to carry your weight and help others who are struggling. Recognize when to speak up with an idea and when to compromise by blend ideas together.

**4. Appearance:**

Dress for success set your best foot forward, personal hygiene, good manner, remember that the first impression of who you are can last a lifetime

**5. Attitude:**

Listen to suggestions and be positive, accept responsibility. If you make a mistake, admit it. Values workplace safety rules and precautions for personal and co-worker safety. Avoids unnecessary risks. Willing to learn new processes, systems, and procedures in light of changing responsibilities.

**6. Productivity:**

Do the work correctly, quality and timelines are prized. Get along with fellows, cooperation is the key to productivity. Help out whenever asked, do extra without being asked. Take pride in your work, do things the best you know-how. Eagerly focuses energy on accomplishing tasks, also referred to as demonstrating ownership. Takes pride in work.

**7. Organizational Skills:**



Make an effort to improve, learn ways to better yourself. Time management; utilize time and resources to get the most out of both. Take an appropriate approach to social interactions at work. Maintains focus on work responsibilities.

**8. Communication:**

Written communication, being able to correctly write reports and memos.  
Verbal communications, being able to communicate one on one or to a group.

**9. Cooperation:**

Follow institute rules and regulations, learn and follow expectations. Get along with fellows, cooperation is the key to productivity. Able to welcome and adapt to changing work situations and the application of new or different skills.

**10. Respect:**

Work hard, work to the best of your ability. Carry out orders, do what's asked the first time. Show respect, accept, and acknowledge an individual's talents and knowledge. Respects diversity in the workplace, including showing due respect for different perspectives, opinions, and suggestions.